NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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ORGANIC AND INORGANIC MATTER.

ANY allusions are now made to scientific terms in agricultural articles, and farmers are frequently heard to remark that they do not comprehend the precise meaning of the words *"organic"* and *"inorganic,"* as applied in agriculture. They are at a loss where to apply the proper distinction which they suppose ought to be observed in judging of the two forms as they occur in nature. All living animals and plants, and their carcases when the vitalizing principle of life has left them, are composed of organic or organized matter. These are readily distinguished from inorganic matter by a structure visible to the eye, as observable in the fibres of hemp and flax—the porous structure of wood and flesh, and the more complicated texture of hide and hair. Rocks and soils—the waters of lakes and oceans—all things, in short, that do not live, which neither are nor should be the medium of vitality, are to be included under the general division of organic matter. Plants and animals, of whatsoever description, are composed mainly of the four principal elements—carbon, oxygen, nitrogen and hydrogen. When either animal or vegetable matter is burned, it loses its texture, and disappears, leaving behind only a slight residuum of ash.

The substances above named, being derived from the atmosphere, are released, and are termed organic elements, or constituents. All the various forms and mutations observable in the animal and vegetable kingdoms, are attributable to the chemical combinations, through the operation of the vital principle of these primary elements. Vegetable oil and starch, sugar and animal fat, are, by fire, resolved into their original elements—carbon, oxygen and hydrogen. These, with all substances of a kindred nature, or character, are the result of, and derived wholly from, organized matter. Wood burned in the open air has its organic constituents dissipated; the inorganic particles only remaining. In the ashes may be detected magnesia, lime, silex, potash, oxide of iron, &c. These latter constitute the inorganic substances in which no structure is visible. Gum, sugar and starch, are all formed in plants, and yet are deficient in pores and fibres; but being produced by the natural operation of living organs, are included, with propriety, under the head of organic matter.

It would be well for our farmers if they could analyze their crops, and also the soils in which they are produced. Few, however, are competent to this, and much, therefore, remains uncertain and unexplained. But as time advances, and science diffuses its light over the earth, these mysteries will gradually pass away; and the farmer will then discover that when he gathers in the rich fruits of his laborious industry in the fall, he collects together a portion of what was his soil, at seed time. In his wheat he will detect lime, flint, and a portion of clay. His Indian corn, a crop in which he justly glories, contains also the same materials, though differently modified in combination, and so do most of the grains he cultivates. All vegetables must have a certain proportion of mineral matter to perfect them, and it is consequently important that he should understand how he can best supply them by animal manures, or mineral applications where there is a deficiency of power to supply them in the soil itself. Animal manures contain these mineral ingredients in a soluble state, and consequently in a condition the more perfectly adapted for immediate appropriation. No particle of matter can enter into, or be assimilated by the vegetable or-

ganism, until its texture has been broken and modified by the solvent action of water.

Thus it will be seen that there is an immediate relationship and constant interchange between the animal, vegetable and mineral kingdoms, and the more perfectly we comprehend the laws of this union, and its phenomena, the more able shall we be to avail ourselves of the riches which nature so prodigally holds forth as an encouragement to enlightened toil. We should ever bear in mind the important fact that manures are endued with degrees of energy, partly from their innate richness, and partly from the facility and promptness with which they part with their fecundating particles to the soil, and to the roots of plants. These are given off only in solution, or in the form of solution or ærified bodies, (gas,) the first taking the name of liquid manure, which penetrates the soil and is absorbed by it to feed the roots of the crop, and the other as air, which, if not absorbed and fixed by some substance for which it possesses a strong affinity, will pass into the atmosphere and be lost. It will hence be seen that the art of manuring consists, not so much in the liberality of our benefactions to the soil, as in the competency of the measures we adopt to prevent the escape of the soluble and gaseous products of the matters applied. It has been estimated by a late writer, that more than one-half of all the active nutrimental matter, formed by the consumption and decay of organic substances, is wholly lost in consequence of the imperfect and thriftless habits which regulate the conduct of our farmers in applying them. This is, indeed, an important consideration, and no one who contemplates it philosophically, will find cause to question the verity of the remark above quoted.

For the New England Farmer.

DOCTORING A HORSE.

MR. EDITOR:—There has been, and perhaps now is, prevalent among horses, a disease which in many cases has proved fatal. Perhaps what I am about to relate has no relation to that disease; if it has, well—if it has not, the facts in the case I relate will not be altered.

I have a valuable brood mare which has done no work during the winter. She has lived on natural mowing hay, without any extra feed, till within the last few days, and is in good condition. About two weeks since, I noticed that she appeared weak—staggered as she left the stall for water, and would stand with her feet unusually wide apart, bracing in the stall, and to move quick would all but bring her to the floor. Her limbs swelled and I feared the result.

During a few days, I gave her potatoes and rowen, not that she was "*bound up*," but for a change of food. I did not perceive that this produced any effect whatever. Then for three days in succession, I gave her, say four quarts of oats, wet with water, among which I mixed a pint to a pint and a half of good hard wood ashes, which, with a few dry oats on top, she ate very readily. After eating the second mess, there was a decided improvement, and after the third mess, the mare appeared very like herself again.

This was all I did to her in the way of *doctoring*, but I gave her good attention by rubbing and feeding, during her illness. She is now bright and hearty as ever.

I am inclined to the opinion that she had a disordered stomach, and that the ashes served to purify it and set it right. Pot or pearlash might have produced the same effect, but would have required more care in their use.

Shrewsbury, Jan. 23, 1856. THOS. W. WARD.

For the New England Farmer.

LIQUID MANURING.

BY PROF. J. A. NASH.

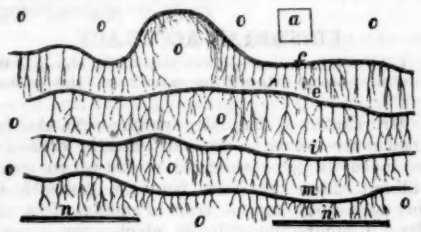
All gardeners, and most farmers, know well that a handful of guano, a pound of super-phosphate, or a shovelful of barn manure, stirred into a barrel of water, and applied after standing a few days to growing plants, will produce effects entirely beyond what would be expected from so small amounts of fertilizing matter.

Facts show that manures, dissolved and greatly diluted, possess astonishing power on the grasses and on growing crops generally, if the land be well underdrained, or naturally porous. Nature has drained most of our land quite enough, some of it too much, owing to which we should be the more willing to drain the rest. Now the gardener, expecting a large income from a small surface, can afford to apply diluted, liquid manure, from a watering pot or a hand engine. The shades would overtake the farmer, before he would have gone over a large field in this way. Can he apply it by means of a water-cart, say with facilities for pumping it into the cart, and then letting it flow upon the land, as in watering streets? I think not profitably. An effort of this kind would be likely to result, either in applying it too strong, or in such an increase of labor, as would overbalance the advantages gained. On small farms, and under the most favorable circumstances, it might succeed, but could not generally. The manure might be applied in a less diluted form, if it were to be distributed in a hard rain, as the falling rain would reduce the too great strength of the manure, and cause it to percolate the soil, instead of lying on the surface to be dried and evaporated by the next day's sun; but this could not be done always, and it ought to be done never, for the farmer has no right to expose his own or his men's health.

I see not, therefore, how liquid manuring can be adapted to any considerable extent among us, unless it be either in the very expensive way employed by some distinguished English farmers, or in one or the other of the two following, which *are not recommended*, for to my knowledge, neither has ever been tried, but simply suggested for the consideration of practical men.

The first suggestion applies only to mow land; and it could take effect only in cases where the mowing is a slope of land below and near the barn, and where a brook, or copious spring of water, could at pleasure be turned into the yard. It proposes to let a stream of water into a tank in the yard, the tank to receive the liquid and a portion of the

solid manures, and arrangements being made for letting in and shutting off the water at pleasure. If the ground to be treated to liquid manure was a regular slope, like the roof of a building, the object could be easily gained, and the land would present a neat appearance; for then the catch drains would all be in parallel lines, and might be at equal distances. In the following cut, the land is supposed to be rolling, and in no way favorable to the carrying out of the plan, except that it lies mostly lower than the barn-yard, and that there is somewhere above the buildings a stream that can be run into the tank at pleasure. Let the tank have a pipe running horizontally from the bottom till it reaches the surface of the ground near the upper edge of the mowing. It should have a gate, and the upper end should be surrounded with a screen, or strainer, to prevent its filling with solid matters. Then each way from the lower opening should be constructed a broad, shallow catch-drain, with the lower bank neatly rounded, and perfectly level from end to end. Below this, and as nearly parallel as the nature of the ground permits, let there be another catch-drain, and so on, as in the cut below:



Let the square, *a*, represent the location of the barn, sheds and yard, *a* marking the place of the tank; *c*, the outlet of the pipe running from tank into the upper catch-drain; *e*, the second catch-drain; *i*, the third; *m*, the fourth; *n*, *n*, embankments to prevent the liquid manure running out of the lot, if it should reach these points; *o*, *o*, *o*, parts of the field too high for irrigation; and the hair lines, rills of the liquid manure, running from one catch-drain to another. If the field above represented have an impervious subsoil, retaining the water, and inclining it to produce the sour, innutritious grasses, it would be bad policy to apply this diluted manure—it might only make bad worse, to put on extra water; but if it were first underdrained, or if it have naturally a light, open subsoil, the effect could hardly fail to be good. In the first place, the water itself, considered merely as for irrigation, would be salutary; and in the next place, it would carry the soluble portions of the manure along and deposit them in the soil, from the surface downward, among the grass roots, more favorably to the growing crop than could be done in any other way. The more elevated portions of the field could receive a coating of manure spread on, or could be tilled, the manure being plowed in, and thus the whole be kept in a productive state. Some may regard all this as mere theory, and if so, they regard it just as it is. I will only say that liquid manuring, could it be accomplished at a moderate rate of expense, would be better in practice than on paper, and we ought, at least, to be inquiring how it can be done.

The other suggestion is, whether liquid manure could not, in particular cases, be conveyed to more distant fields, by its own weight and pressure. Suppose, for instance, the farm buildings to be elevated, and yet from still higher land, a running stream to be at command; and that in an opposite direction, at a distance of 60 or 80 rods, is a field of, say, 12 or 15 acres of tillage land, lying at a level of 30 or 40 feet lower than the buildings. The cost of laying a lead pipe from the tank to the centre of the field would not be very great. A single hydrant with a hose 90 feet long would enable the operator to throw the liquid manure over the whole field. It would be no very great expense to extend this pipe to other fields adjoining, and there to construct hydrants, to which the same hose could be attached. It would not be best, in such a case, to agitate the manure in the tank very strongly, before drawing it off, but to let it settle so as to be nearly free from solid matters, (the insoluble part of the manure,) and to apply this to lands nearer the barn. I cannot but think that on farms favorably situated for such an operation, a considerable saving of labor and a great increase of crops might be gained, without any very frightful expense.

For the New England Farmer.

WHAT AILS MY COW?

Mr. Editor:—Can you tell me what ails my cow? Two or three weeks ago the hair around her eyes turned white and came off; afterwards it came off in spots back of her hips and on her thighs; it has since come off in other parts of her body—but principally where the spots first appeared—around the roots of the tail, &c. The skin generally starts with the hair, and a little bloody matter is seen beneath it, which soon dries up and forms a scab. She appears as well as ever—eats and drinks as usual. She is with calf, to come in late next season, and we milk her, but do not use her milk. She gives her usual quantity. (*a.*) Is it best to keep cattle in the barn, or let them run in the yard in cold weather? Many farmers keep them in the barn mostly, turning them out to drink only once in twenty-four hours. Is this the best way? (*b.*)

Princeton, Jan., 1856. A Subscriber.

Remarks.—(*a.*) Can't tell you. Perhaps your cow has been suddenly heated, and cooled off too quick. Has a dog been after her recently? Perhaps she eats concentrated food, such as meal and slops. Feed her on carrots or other roots, and English hay, using the card freely, and you may bring out a new coat better than the old one.

(*b.*) Cattle do best in a warm and equable temperature. If they can stand in the sun, and away from the wind, two or three hours each day, well; if not, keep them tied up, but in a comfortable manner.

Wheat Cultivation.—Prof. Mapes, in a recent address at the Indiana State Fair, stated that the wheat crops of Ohio had fallen from 35 to 15 bushels per acre. This statement is denied to be true by the editor of the *Ohio Farmer*. He asserts that the average amount of wheat raised per acre in Ohio is now greater than ever it was, and he gives statistics to prove his assertion.

For the New England Farmer.

"IS FARMING PROFITABLE?"

SKETCHES OF WEST STOCKBRIDGE FARMERS' CLUB.

BY J. N. BAGG.

It was remarked, that indolence and bad management are always unprofitable, and these are often allied to agriculture. Eleven hours a day are required of operators in manufactories and workshops, all winter long, and merchants keep their stores open from fifteen to seventeen hours a day.

Few farmers work in winter as many hours as manufacturers. Some, on the contrary, rest all winter, and idle away part of the summer, and these are the ones, usually, that cry out against the profitableness of farming.

If farmers were as diligent and constant as other men, they would make as much money.

If farming is unprofitable, how happens it that farmers' families are so well fed and clothed, and so many have money in the Savings Banks?

The farmer's salary comes in by driblets, instead of a lump. Little by little he receives his yearly stipend. A dozen of eggs to-day, a few pounds of butter to-morrow, pigs, calves, poultry, corn, potatoes, apples, are some of the things he sells.

Land worth ten dollars an acre often pays for itself, besides taxes, interest and expense of cultivation, in a single year. A man in this vicinity sold $210 worth of potatoes from an acre this year. They were an early variety, and were dug and sold in season to sow the ground with turnips.

Besides, money is not the only thing in which there is profit. Farmers are healthy men. Is health profitable? Ask the invalid. Is good digestion worth any thing? Ask the dyspeptic. Is sound sleep good? Ask the sleepless. Is longevity valuable? Ask him who dies in "manhood's early prime."

All these belong to the farmer. They are almost inseparable from his business. They are allied to his calling. Who would not then be a farmer?

A WIDE AWAKE LETTER!

We cannot resist the temptation to publish the following letter from one of our earnest and intelligent correspondents. If our *vanity* would permit it, the excellent suggestions it contains for our brother farmers, would positively forbid it. So here it is, and *we* believe it is all as true as the book of Mark. Thank you, sir.

FRIEND BROWN:—I take the hint, and respond in the sum of two dollars for the *Farmer, due or not due.* Who ever kept debtor and creditor for a newspaper? I assure you, I contract no debt, where I get so much value received for the two dolls. My friend H., at New Rochelle, says he "takes no paper that combines so much farm instruction and good reading matter;" and without the fulsomeness of compliment, I beg to say, I like its editorials, its dealings in practical advice, and soundness of literature. The Monthly Calendar is always well adapted to its time.

To me, it is a matter of regret that farmers do not write more. If time is short, I, for one, would excuse them with *six lines or less,* in describing a *big beet, pig, turkey,* an *ear of corn;* or the length of a wheat head. The first page of your paper always interests and instructs me with something new.

A few days since, I met in Western Mass., one of your correspondents, a Mr. S., of South Deerfield, an eminent farmer, whom I should have accounted "a Barnum," had he not been mounted with an honest blue farmer's frock. He wished me to go and see his farm—haste would not permit, although anxious to do so, when he told me he raised 800 bushels of corn on less than eight acres of ground, and raised his own wheat, and had not bought a barrel of flour for years. Now Gov., this is one of the *working bees*—(does not work *hard,* but *well*) *that brings honey to the hive*—that speaks with emphasis upon the *bread question* to the drones of the great hive of the New England farmers—an open question, which can only be answered by bushels of wheat and barrels of flour—that drains their pockets to the dregs. But as sure as there is water in the sea, the example of our friend S. will be adopted by all those noble farmers "down east."

Yours respectfully, HENRY POOR.

New York, January 15th, 1856.

For the New England Farmer.

EDITORIAL ACCURACY.

Milk, four quarts for one pound of Butter—Importance of Editorial Accuracy—Trip to Washington—Farm School at Westboro'.

MR. EDITOR:—The late driving storm, that has filled every avenue to the barn, and the fields and woods to the generous depth of snow, two and a half feet at least, has been peculiarly favorable for the perusal of agricultural instruction from the city. I admire the attire in which your paper is clothed, and the promise it gives of sound instruction. I am glad to know that you are so fortunate as to secure a series of contributions from fountains so reliable as are at your command. When we find editors deliberate and considerate in what they say, and abiding by it, year after year, we have respect for their publications, although we do not approve of all their notions. This remark is brought to mind by the vascillation in the columns of one of your neighbors, much circulated among the farmers, about the superior butter-making qualities of his stock. We had understood him to say again and again, that his *Devons* would yield milk, *four quarts* of which would make a pound of butter. I now understand him to say that he never stated any such absurdity, and to challenge any one to show where he has made such a statement. I have not a file of his papers at hand, and know not where to find one; and therefore will not presume to name the page and time, where the statement can be found—but if no such statement has been made by him, I do not wish to hold him to it, because I do not believe it to be true. I do not believe there can be found, in his herd, or anywhere else, four animals together, that will give milk of a quality through their entire season of milking, (say nine months) that will yield more than *one pound of butter to each eight quarts of milk, lawful measure!* And whoever undertakes to leave an impression different from this, is so far chargeable with an attempt to mislead the public.

I was truly glad to learn that you visited Washington, at the meeting of national farmers there. Hope that the products of their labors will be proportioned to the excellence of the purpose. I am

glad to learn that the energetic President of the association still holds on—for without his energy, skilfully applied, what would it be?

I am truly pleased to see that the Governor was able to speak so favorably of the State Farm School at Westboro'. There is no one of the institutions under the care of the State, from which more is to be hoped, than this, if properly conducted;—there is no one whose influence will be more baneful, if not properly conducted. Only think, here are constantly six hundred youths, between the ages of ten and twenty, training up for good or evil—in a situation to be moulded at will, without any controlling influence of guardians and relatives. If they do not come out valuable members of the community the fault will be on the heads of those who guide them. We hope for the best.

Pardon this hasty scrawl, and believe me ever faithfully yours, ESSEX.

Jan. 14, 1856.

PEARLASH.

We re-publish the following article in order to give the correction which some chemical friend sent us on Jan. 5th.

PEARL ASH.—This is the common name for carbonate of potash, and is an alkaline substance ob tained from wood ashes. The ashes of the burnt timber are collected and put into cisterns; water is poured upon them, which dissolves all the soluble parts of the ash, and, after standing some time to become clear, is drawn off and evaporated to dryness in iron pots, when the half-melted pearl ash remains. It is then put up in casks containing about 500 weight. Pearl ash obtained by this process is usually of a greyish color, from the presence of impurities; but it is readily freed from these by dissolving it carefully in water, and evaporating the clear liquor. Pearl ash, when pure, is a white substance, of an acrid, caustic taste, easily soluble in water, with which it has so great an affinity as to attract it from the air, unless it is kept in closely corked vessels or casks. It is an article of great utility in many of our manufactures. Soft soap is in part composed of it; many kinds of glass are made by its aid. It is also used by scourers in cleaning wool, &c.; and its use in removing grease and scouring wood-work, paint, &c., is very great, although soda has of late rather superseded it for the latter purposes.

MESSRS. EDITORS:—I note your article on "Pearl-ash" in yours of to-day, and, inasmuch as it is not wholly correct, beg to refer to it.

The lye, after being "evaporated to dryness," leaves a deposit of what is known as black salts, and the pearlash of commerce is the result of the following after processes, viz: These salts are then placed in an oven, so constructed as to bring as much surface as possible in contact with flame of wood fire, and the impurities are thus burned out, and if properly treated, instead of being of a greyish color, the pearl ash is the very *whiteness of white intensified.*

Touching the matter of its uses, I apprehend that the "soft soap" application would produce a very indifferent commodity for domestic uses; potash (a caustic alkali) being not only more reliable, but more economical. CHEM.

January 5th, 1856.

FOURTH ANNUAL MEETING
OF THE
U. S. AGRICULTURAL SOCIETY.

The United States Agricultural Society met at Washington, in the East Room of the Smithsonian Institution, Jan. 9. Although the severe storm, which had blocked up the roads at the North, prevented many delegates from reaching the city, there was a respectable attendance from various States and Territories.

Credentials were presented by gentlemen representing various State Boards of Agriculture, and State and county societies.

The President, Hon. Marshall P. Wilder, then delivered the following able

ADDRESS.

Gentlemen of the Society, and friends of Agriculture:—Official duty requires me to submit to you, on this fourth anniversary of our Association, a statement of its operations and progress for the past year, and to offer such recommendations as these may suggest in respect to its future mission. The year which has just completed its course has been one of unusual prosperity to the American farmer, in which a kind Providence has rewarded his toil with abundant harvests, with ready markets and remunerating prices. Among the secondary causes which have contributed to this result, we recognize the scarcity produced by the drought of the preceding year, and the demand for American produce created by the war in which many of the countries of Europe are still involved. As philanthropists and Christians we deplore this conflict, yet we cannot lose sight of the fact that it imparts to the agriculture of our country peculiar importance, and, should it continue, will afford an increased demand for the products of our soil. Still our main reliance must ever be upon the progress of society within our own borders, upon the prosperity of our industrial pursuits, and the consequent home consumption of our agricultural products. The commerce of one section of our republic with another, hardly second in importance to our foreign trade, is worthy of the attention and study of our political economists and the wisest of our statesmen; and this commerce is created and sustained by the art which it is the object of our association especially to promote.

Gentlemen, I congratulate you on the progress of our institution during the past year. If it has not accomplished all which we anticipated, it has furnished pleasing evidence of its growing prosperity and usefulness, and strengthened our hopes in regard to its future development.

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The arrangements for the Boston exhibition were on a most liberal scale, and so perfectly systematized as to be easily controlled, and to contribute to the comfort and happiness of the multitude in attendance.

The number of entries in all the departments was nine hundred and thirty-one, embracing between one thousand and fifteen hundred animals. The sum awarded in premiums alone was nearly twelve thousand dollars, a larger amount than has ever before been distributed by any other Agricultural Society in our country. The other incidental expenses were very large; yet all these, as will appear from the treasurer's report, were more than

covered by the receipts, leaving a balance to be added to the funds of the Society. This balance would have probably exceeded ten thousand dollars, but for the severity of a storm which entirely suspended the exercises of the occasion, during the 24th inst.

The experience of the last year confirms the opinion before expressed in favor of holding annual exhibitions in different sections of the country, as a means of establishing the reputation of the Society, and of promoting personal acquaintance and practical knowledge, among the most intelligent farmers of our land.

The utility is becoming more and more manifest every year, combining the most healthful recreation of the people, and verifying the remark of Daniel Webster, at the first exhibition of the Norfolk Society in Massachusetts: "The great practical truth and characteristic of the present generation is, that public improvements are brought about by voluntary association and combination. The principle of association—the practice of bringing men together for the same general object, pursuing the same general end, and uniting their intellectual and physical efforts to that purpose, is a great improvement in our age. And the reason is obvious. Here men meet together that they may converse with one another—that they may compare with each other their experience, and thus keep up a constant communication. In this practical point of view, these Fairs are of great importance. Conversation, intercourse with other minds, is the general source of knowledge. Books do something. But it is conversation—it is the meeting of men face to face, and talking over what they have in common interest—it is this intercourse that makes men sharp, intelligent, ready to communicate to others, and ready to receive instruction from them."

I, therefore, recommend to your particular attention any application which may be made in reference to future exhibitions of the society. As the fact is now well established that the exhibitions of the national society in every State advance rather than retard the progress of the local associations within its bounds, such applications may be expected to multiply, and it is worthy of your inquiry whether any additional action of our body is necessary on this subject.

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I have the pleasure to inform you, that invitations have been extended to several gentlemen of distinction to deliver lectures before this association during our session. I would, also, recommend that as much time as possible be allotted to the free discussion of agricultural subjects, with a view to elicit the results of experience in different parts of our Union.

It will be remembered that such a course, at our last annual meeting, led to an interesting debate on the relation of political economy to American agriculture. One of the gentlemen who took a prominent part in that discussion, and whose powerful argument is published in the transactions of this Society, has finished his labors on earth, and entered into his rest. Chauncy P. Holcomb, Esq., one of the founders, and a Vice-President of the Association, died at his residence, soon after our last meeting. He was one of the most distinguished farmers of Delaware, and of this Republic; of clear and discriminating mind, thoroughly conversant with the science and practice of Agriculture, and one of its ablest defenders and warmest friends. His private virtues and public services will perpetuate his name and his memory in the hearts of his countrymen. Of other members, who have deceased during the year, we cannot speak particularly, with the exception of Thomas Hancock, Esq., of New Jersey, who was present at our last meeting, and took part in its exercises, and who, like Mr. Holcomb, entered the spirit world soon after his return from this city. With both of these gentlemen it has been my privilege to be long associated, for the promotion of the rural arts; and I am happy to bear testimony to their integrity of character, and to their zeal and fidelity in the cause of terraculture. Here, beneath this roof, where they mingled their thoughts, and joined their efforts with ours, it is pleasant to speak of their merit, and to record their worthy deeds.

But, gentlemen, while individuals die, associations and institutions survive. It is not, ordinarily, the privilege of those who start any great enterprise, to witness its consummation. One generation prepares work for the next. We are carrying out the designs of our fathers, and realizing the results for which they labored. Our national institution is but the partial development of ideas cherished by the immortal Washington. In his letter of July 20, 1794, to Sir John Sinclair, he says: "It will be some time, I fear, before an agricultural society, with Congressional aids, will be established in this country. We must walk, as other countries have done, before we can run. Smaller societies must prepare the way for greater; but, with the lights before us, I hope we shall not be so slow in maturation as other nations have been."

What the farmer of Mount Vernon, more than half a century ago, desired, we have undertaken; but others must carry on and perfect them. Local associations have been formed in towns and counties, in States and territories of the Union; and these, as he anticipated, have opened the way for our national organization.

The United States Agricultural Society is now an established institution. It is in successful operation, receiving the confidence, patronage and favor of the public; and, in return, it is co-operating with local associations, and dispensing its bounties for the encouragement of individual enterprise and merit. The encouragement thus afforded to American agriculture, and the improvement therein, have helped to till and put under profitable cultivation the immense prairies of the West and the alluvial soils on the banks of our vast rivers—to reclaim thousands of acres of waste land in populous districts, and to restore the exhausted soils of the older States. They have thus increased, many fold, the value of our land, the amount of our agricultural products, and have preserved us from the bankruptcy and ruin, too often consequent upon an excess of trade, or an influx of the precious metals. They have created and sustained trade, spread the sails of a prosperous commerce, and saved us from commercial embarrassment which would otherwise have been as prolonged as those of former years. They have also maintained an equilibrium among all branches of American industry. They have developed, in a remarkable degree, the conservative and progressive elements of the American system, and have taught us that we can safely depend upon our own resources, and become, in the noblest sense,

free and independent. Already our American farm extends from the Atlantic to the Pacific, and it is only a question of time when it shall be bounded on the North by the Arctic, and shall terminate on the South at Cape Horn.

Gentlemen, I have cordially co-operated with you in the inception, organization and progress of the society to the present time, and, in future, I shall be ever ready and willing to contribute to its advancement according to my ability. But I have not the presumption to believe that I possess such qualifications for its presiding officer as to entitle me any longer to the honors of that office. So far as its responsibilities are concerned, I claim to have borne my full share of them, and it is my desire to resign the presidency, and to aid in installing some one of the many gentlemen whom I see around me, better qualified to sustain these responsibilities and more worthy of this high trust. To you, my fellow-associates, who have borne with me the heat and burden of the day, I tender my heartfelt acknowledgments for your cordial support and confidence; and I beg to assure you all of my continued interest in our association, and of my affectionate and high regard for you personally.

Gentlemen, while we review with unfeigned pleasure the extension of our agricultural domain—the advances of improvement in the arts of husbandry—the increase of the products of our soil—the interest manifested everywhere in the objects which we seek to promote—the contributions which wealth and science are continually making for the advancement of this cause, and the numberless other proofs of progress which encourage and cheer us in our noble work, yet let us remember that the prosperity of our association must ever depend upon the untiring energy and perseverance of its members. We rejoice that it is so, for activity is the life, health and triumph of enterprise. To no people on the face of the earth is this more applicable than to the farmers of the United States of America, where every man is the arbiter of his own fortune.

What a cheering prospect is before the American yeomanry! What a destiny awaits them!—one in all the rights and privileges of a common citizenship—the conservators of a common country—the almoners of Heaven's bounty to the reduplicating millions of our population. Bound together by a chord of living sympathy, they are and ever must be, the guardians of the public weal; and the power that would paralyze their arm destroys the last refuge of our nation's hope.

> "Princes and lords may flourish or may fade;
> A breath can make them, as a breath has made,
> But a bold yeomanry, our country's pride,
> When once destroyed, can never be supplied."

Success, therefore, my brethren, to the American farmer!

Hon. B. B. French, treasurer of the society, then presented his annual report, showing the balance in the treasury to be $4,019 15.

On motion, Major B. P. Poore, of Massachusetts; D. Jay Browne, of Washington, and C. H. McCormick, of Illinois, were appointed to audit the treasurer's accounts.

The President read a letter from Mayor Conrad, of Philadelphia, inviting the society to hold its next annual exhibition in that city.

On motion of J. D. Weston, Esq., of Massachusetts, seconded by Col. Anthony Kimmel, the proposition was accepted, and referred to the Executive Committee.

A. H. Byington, Esq., of Connecticut, and other gentlemen, discussed the feasibility of holding exhibitions in the city which would guarantee the largest fund.

The President read a series of resolutions passed by the General Assembly of the State of Illinois, asking Congress to donate to each State an amount of land, not less in value than $500,000, for the establishment of Industrial Universities.

After discussion, the subject was referred to a committee, consisting of Professor Henry, of Washington, Hon. J. D. B. DeBow, Esq., of Louisiana, and A. H. Byington, Esq., of Connecticut, with authority to present the same to the attention of Congress.

D. Jay Browne, Esq., of the Patent Office, made some interesting remarks on the various races of "the horse" to be found in France, with the different government establishments there for improving the breeds of this useful animal. His remarks, with a paper upon the same subject, suggests a similar system for this country. The importation of animals of different breeds, for purposes of propagation, could not fail to be of immense advantage.

Captain Van Vliet, U. S. A., read a valuable paper on the domestication of the wild animals of our western prairies. It was replete with interesting information, especially on the "Rocky Mountain sheep."

Professor Baird exhibited specimens of the horns and skins of these sheep, and urged experiments to ascertain if they could be domesticated.

On motion of Mr. Browne, the Executive Committee were authorized to take such steps for the domestication of the Rocky Mountain sheep as they might deem expedient.

A resolution providing for the importation of seed wheat was discussed and adopted.

Several other papers were read, and the society then adjourned until to-morrow, at ten o'clock.

SECOND DAY.

The society was called to order at half-past 10 o'clock, and quite a large number of gentlemen reported themselves, who had been detained by the storm. Others are yet on the "'tother side of the Susquehanna," and one delegation of ten members of the Massachusetts societies is among the weather-bound. President Wilder read several letters relating to annual exhibitions. Mr. Secretary Guthrie, delegate from the Southwestern Agricultural society, invited the National Society to hold its next annual exhibition at Louisville, Ky. Resolutions from the Maryland Mechanics' Institute were read, inviting the National Society, in eloquent and earnest terms, to hold its next exhibition in Baltimore.

On motion of Col. Anthony Kimmel, the invitations were referred to the next annual meeting, it having been decided to hold the next exhibition at Philadelphia.

Major Poor, from the committee appointed to audit the Treasurer's accounts, reported that they had attended to their duty, and had found everything correct.

Dr. Beechman, of New York, presented the following resolution:

Resolved, That agriculture and other great interests of the State would, in the opinion of this socie-

ty, be materially benefited by extending to the land the system of meteorological co-operation and research which has done so much and is doing so much for commerce and navigation at sea; and that this society do hereby earnestly recommend such extension to the favorable consideration of Congress.

This resolution was debated, Lieut. Maury, Prof. Henrye and other eminent gentlemen participating.

C. B. Calvert, Esq., of Maryland, replied to Professor Henry's remarks, especially his insinuation that Lieut. Maury was not entitled to the credit of having made meteorological observations practically useful. With due respect to Professor Henry and the Smithsonian, he would not have the matter pass from the hands of that eminent and distinguished man, who had not only proved himself a scientific man, but a man of practical science.

Jndge S. H. Huntington, of Connecticut, hoped that a committee would be appointed to consider the subject, before presenting it to Cougress.

C. B. Calvert, Esq., objected to this, as calculated to detract from the honor belonging to Lieut. Maury.

Lieut. Maury, Judge Huntington, Professor Henry and Horace Greeley spoke on the question of reference to a committee.

D. J. Browne, Esq., wished to make some explanations of meteorological observations carried on at the Patent Office.

Major Poor, regretting that the discussion was becoming a personal scientific quarrel, into which subjects had been introduced as illegitmate as was the "scion of the House of Northumberland," who had been alluded to, moved the previous question.

The motion was sustained, and the resolutions were then carried, viz:

Resolved, That agricultural and other great interests of the State would, in the opinion of the society, be materially benefited by extending to the land the system of meteorological co-operation and research which has done so much and is doing so much for commerce and navigation at sea; and that this society do hereby earnestly recommend such extention to the favorable consideration of Congress.

Resolved, That a committee of three be appointed by the President to communicate the above resolution to each member of Congress, and to solicit his co-operation. The result of their application in behalf of the great agricultural interests of the country to be reported at the next meeting of the Society.

Major Poor, Judge Huntington, and C. B. Calvert, Esq., were appointed as this committee.

C. B. Glover, of the Patent Office, read a paper on "Agricultural Entomology;" which, on motion of G. W. P. Custis, was ordered to be published in the transactions.

THIRD DAY.

The society was called to order by the President.

Professor Henry read a paper on the "origin and action of Power as applied to the vegetable kingdom." On motion of Col. Calvert, it was ordered to be published.

Col. Kimmell, from the nominating committee, presented a list of officers for the ensuing year, and an expression of regret that Major Poor had positively declined serving further on the Executive Committee. After some discussion as to the qualification of the Vice Presidents nominated, the report was accepted. The officers were then elected for 1856, viz:

PRESIDENT,

MARSHALL P. WILDER, *of Massachusetts.*

VICE PRESIDENTS,

J. D. Lang, Maine,	M. L. Underwood, Kentucky,
H. F. French, New Hampshire,	John Bell, Tennessee,
Simon Brown, Massachusetts,	Jos. A. Wright, Indiana,
J. J. Cooke, Rhode Island,	F. A. Kinnicut, Illinois,
J. A. Rockwell, Connecticut,	T. Allen, Missouri,
Dr. J. P. Beekman, New York,	Roswell Babce, Arkansas,
Geo. Vail, New Jersey,	J. C. Holmes, Michigan,
Isaac Newton, Pennsylvania,	D. J. Yulee, Florida,
J. W. Thompson, Delaware,	C. Durkee, Wis.,
Anthony Kimmel, Maryland,	P. Ord, California,
G. W. P. Custis, Virginia,	W. W. Corcoran, D. C.,
H. K. Burgwyn, N. Carolina,	J. M. Gallegos, New Mexico,
R. W. F. Alston, S. Carolina,	H. H. Sibley, Minnesota,
R. Peters, Georgia,	P. W. Gillet, Oregon,
C. C. Clay, Jr., Alabama,	C. Lancaster, Washington Ter.
M. W. Phillips, Mississippi,	E. Hunter, Utah,
John Perkins, Jr., Louisiana,	B. R. Chapman, Nebraska.
Gen. Worthington, Ohio,	

EXECUTIVE COMMITTEE,

J. A. King, New York,	J. Jones, Delaware,
A. L. Elwyn, Pennsylvania,	W. H. H. Taylor, Ohio,
D. Jay Browne, D. C.,	Richard P. Waters, Mass.

SECRETARY—W. S. King, Boston, Mass.

TREASURER—B. B. French, D. C.

Col. Wilder, in an eloquent and impressive speech, accepted the office.

On motion of Gen. Worthington, of Ohio, it was *Resolved*, that the members of this society return to our worthy President our heart-felt thanks for the great ability, the indefatigable zeal and kindly courtesy with which he has discharged the duties of his office, and also for yielding his wishes to ours in consenting to retain his station.

This resolution was received with great satisfaction by all present, and cordial testimony to its truth was born by gentlemen who had witnessed the indefatigable labors of President Wilder.

A paper on agricultural chemistry was read by Professor John D. Easter, of Baltimore, and ordered to be published in the transactions.

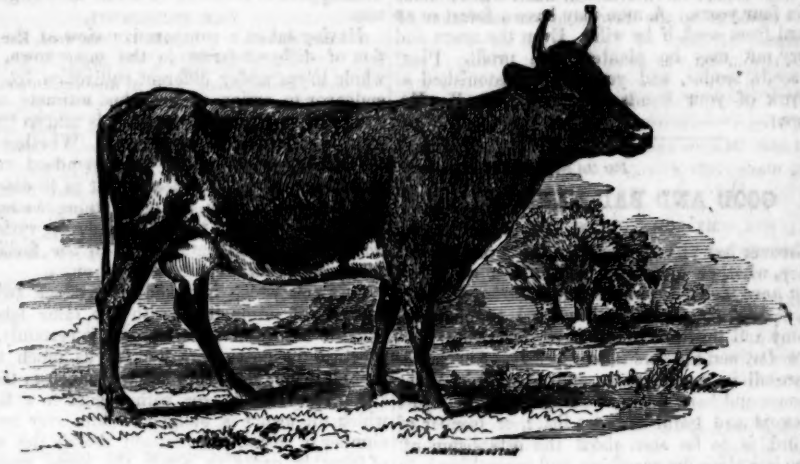
Mr. Browne presented a paper on guano, which was read and ordered to be published in the transactions.

Reports from Professors Henry and DeBow on the grant of land by Congress for Industrial Colleges in each State, were discussed and referred to the next meeting.

Other business was then transacted, after which the venerable G. W. P. Custis was introduced to the society, and delivered a most eloquent address, referring to his youthful recollections, when he had seen the "Father of his Country" shooting birds on fields, now the site of this metropolis. He gave a vivid sketch of our national rise and progress, both agricultural and social. In conclusion, taking such a farewell as the oldest member present might take, he would give that noblest of human sentiments: "Success to agriculture."

The society adjourned *sine die*. The next meeting will be held here next year—the next annual exhibition will be held at Philadelphia, in September or October, and will doubtless be a grand affair.

☞ Potash constitutes one-half of the weight of potatoe ashes. This shows the importance of wood ashes, as a manure for this crop. As there is 9-60 per cent. of sulphuric acid in the potato ash, it is apparent that plaster (sulphuric acid and lime,) is also necessary to insure a good crop.



GRADE COW, BEAUTY.

One of the marked evidences of the improvement among farmers, is the attention which has been given of late years to neat stock. It is not alone an effort to introduce new crosses, or distinct breeds, but a better appreciation of their wants, and a better knowledge of their physiological structure. Few cattle-breeders now leave their stock exposed to the elements, or expect them to thrive, unless kept in a comfortable condition. But the time has been, when we heard an aged farmer, of a good deal of experience, say that a portion of his stock throve as well in the open air through the winter, as did those who were sheltered in his barn! It is now generally believed, that the food of the animal, like fuel in the stove, generates heat, and that exposure creates a new demand for food.

Stock is tended better, every way, than it used to be. They are fed more liberally, kept warmer, cleaner, and protected from dogs, and the stronger ones of the herds. Their natures, constitution, habits and wants are studied more, and are better understood.

The Grade Cow, Beauty, represented above, is the result of the new interest in stock which we have spoken of above. She is the property of GEORGE M. BARRETT, Esq., of Concord, in this State, one of the largest and best farmers, as well as one of the best citizens of the commonwealth. She received the first premium at the late United States Fair; is four years old last July, half Ayrshire, and raised from Mr. B.'s Ayrshire and native stock; had her first calf Sept. 8th, 1854, and averaged fifteen quarts of milk a day for two months, on grass feed only, and gave seven quarts a day on the 20th June last, when he discontinued milking her. She dropped her last calf on the 23d of August, 1855, and since that time, up to the first of November, (when his statement was made to us,) gave *sixteen quarts* of milk per day on grass, with an occasional feed of corn-fodder.

We understand that this cow, as well as other animals of his stock, prove to be excellent in every way; are good milkers and feeders, hardy, gentle, and lay on fat or flesh as rapidly as any other stock, when producing the same amount of milk.

There is plenty of room still for improvement in our cattle. What is required is patience, study and intelligence; and without these, there can be little hope of permanent and important improvement.

TREES FROM SEED.—"A few years ago we made a large collection of the seeds of shade and ornamental trees, both deciduous and evergreen, and planted with much care, but did not get a seed to vegetate. This season we have found out what was the matter; we planted too deep. It is well known that in the pine-regions of Georgia, this has been a great mast year, and we now find everywhere where the winged seeds have met the surface soil, they have thrown out roots, and begun the form of a tree. They had no planting but what nature gave them, and dame nature is a tolerable horticulturist. We invariably plant tree seeds; just soil enough to preserve the moisture is all that is necessary. An ornamental tree, grown from seed, may be made anything the cultivator wishes it. A fruit tree grown by seed is most likely to be healthy, and may prove a sure and valuable variety. It has been a question of time with most of us; we could not

wait for tree seeds to form trees. A pine seed will make boards in twelve years. Apple seeds will make fruit-bearing trees in four years. Grapes in eight and ten years. Peaches and plums in two years. The China tree seed will make a good shade tree in four years. A man may have a forest or an orchard from seed, if he will. Even the acorn and hickory nut may be planted with profit. Plant tree seeds, reader, and you will be astonished at the work of your hands in a few years."—*Exchange.*

For the New England Farmer.

GOOD AND BAD FARMING.

BY JOHN GOLDSBURY.

Whoever has travelled much, in any part of our country, whether North or South, East or West, cannot have failed to notice the different appearance of different farms with regard to neatness, economy and thrift. On one farm, everything is in good order, and appears neat and tidy. The buildings are all in good repair, and the yards, about the house and barn, look as though they had just been swept and garnished; no litter, or lumber of any kind, is to be seen about the establishment. "There is a place for everthing, and everything is in its place." Everything *on* or *about* this farm, betokens neatness, economy and thrift. On another farm, how altered is the scene! Here, everything looks as though a hurricane had swept over the place, scattering litter, rails and lumber in every direction. The house, and barn, and fences, appear in a dilapidated state; and all the yards about the establishment are filled with broken-down carts and carriages, plows and harrows, wheelbarrows and ox-yokes, and implements of husbandry of every description. Everything *on* or *about* this farm, indicates a want of taste, neatness, economy and thrift.

The same is observable with regard to towns. Go into one town, where considerable attention has been paid to agriculture, as a science—a town not remarkably distinguished for the richness and fertility of its soil, or the care with which it may be cultivated—being rather a poor, hard and rocky soil, and there you will behold comfortable, convenient and well-built farm-houses and well-filled barns, cultivated fields and fruitful orchards, good walls and fences, large stocks of cattle, horses, sheep, swine, &c., and everything indicating the taste, neatness, economy, industry and thrift of the farmers. Go into another town, in which little or no attention has been given to the cultivation of the earth—a town possessing all the natural advantages of a fertile, well-watered and exuberant soil, and of a favorable location and mild climate,—and there you will behold a scene, which, if it do not make you "stare like a cat in a strange garret," will, at least, induce you to quit the town as quick as possible, lest the contagious influence of such a scene should overshadow your spirit with gloom. For, as you cast your eyes about you, and behold the miserable prospect on every side,—houses, barns, and other buildings, grown old and going to decay, fields covered with weeds, brambles, briers, thorns and thistles—as you behold all this, you will be convinced, that some blighting, withering curse must have fallen upon the inhabitants of that town, and paralyzed all their energies. Otherwise, why have they neglected to cultivate and improve their lands, to repair their rusty old buildings, and to repair their broken-down fences? In order to account for such negligence on their part, one would be inclined to think that they must have been the worshippers of Bacchus, or of the drowsy god Somnus.

Having taken a comparative view of the condition of different farms in the same town, and of whole towns under different cultivation, let us now endeavor to arrive at some just estimate of their comparative values. Everything is said to be worth what it will bring in the market. Whether or not the market price be the true standard value of everything, it is not necessary for us to determine. The value of a farm, all other things being equal, should be estimated by the abundance, variety and richness of its productions, and by the facility and ease with which it can be carried on.

A farm, which is made to produce twice the amount of productions, with the same labor and expense bestowed upon another, is certainly, for all practical purposes, worth twice as much money, though it may not bring twice as much in the market. The same is true with regard to a farm, on which the owner is obliged to skim over twice the number of acres, and perform double the amount of labor, in order to obtain the same amount of crop. It is cheaper—it is easier—it requires less labor to cultivate a few acres and cultivate them well, than to attempt to cultivate a large number, and do it imperfectly. We see, then, that the highly cultivated farm is the most valuable and productive farm, and will generally bring the most in the market. It is skilful, practical and scientific agriculture, which renders a farm truly valuable and productive.

The same is true with regard to towns which are made up of the different farms contained therein. Every town is to be estimated according to its productiveness; and this depends, in a great measure, upon the degree of the attention which has been paid to agriculture. No matter how a town stands on the State valuation list, its real value depends upon its resources—its ability to produce all the necessaries, the comforts, the conveniences, and the luxuries of life; and these depend, in a great measure, upon the knowledge and practical skill of its cultivators. A town, in which the science of agriculture has never been developed, cannot vie with another, in which art and science and persevering effort, have, for a long series of years, been carrying forward the great work of improvement. The river does not gush up at once in full tide from the ground; but it commences in a thousand springs, whose waters flow on and mingle until they become a flood, when the ships float and the sea monsters play. The sun does not rise up instantly, deluging the earth with a sudden burst of light; but faintly, at first, his rays tinge the eastern horizon; and while the shadows of the dark night are still upon the earth, higher and still higher mounts the sun, until at last his broad light is poured in full splendor upon the world, and it is day. So it is with the science of agriculture. Its beginnings are small; but it increases as it advances, till it finally changes the whole aspect of a town.

THE MERCHANT'S CLERK AND THE PLOWBOY.—The young man who leaves the farm-field for the merchants desk or the lawyer's or doctor's office, thinking to dignify or ennoble his toil, makes a sad

mistake. He passes, by that step, from independence to vassalage. He barters a natural for an artificial pursuit, and he must be the slave of the caprice of customers and the chicane of trade, either to support himself or to acquire fortune. The more artificial a man's pursuit, the more debasing is it morally and physically. To test it, contrast the merchant's clerk with the plowboy. The former may have the most exterior polish, but the latter, under his rough outside, possesses the truer stamina. He is the freer, franker, happier, and nobler man. Would that young men might judge of the dignity of labor by its usefulness and manliness, rather than by the superficial glosses it wears. Therefore, we never see a man's nobility in his kid gloves and toilet adornments, but in that sinewy arm, whose outline, browned by the sun, betoken a hardy, honest toilet, under whose farmer's or mechanic's vest a kingliest heart may beat.—*Hunt's Magazine.*

HARVEST HOME.

Proud ships may hold both silver and gold,
The wealth of a distant strand;
But ships would rot, and be valued not,
Were there none to till the land.

The wildest heath and the wildest brake
Are rich as the richest fleet,
For they gladden the wild birds when they wake,
And give them food to eat.

And with willing hands and spade and plow,
The glad'ning hour shall come,
When that which is called the "waste land" now,
Shall ring with the "Harvest Home."

PARSNIPS FOR MILCH COWS.

Will you inform me, through the columns of the *Country Gentleman*, respecting the qualities of parsnips as feed for dairy cows through the winter. I have a quantity, and would like to know if you think them good feed for miking cows.

Lexington, Ky. THOMAS JINKS.

Parsnips are very highly esteemed as food for milch cows, as well as for pigs and poultry, in the Island of Jersey, where they are extensively grown for this purpose. We quote from the *Cyclopedia of Agriculture:* "When parsnips are given to milk cows with a little hay, in the winter season, the butter is found to be of as fine a color and excellent flavor as when the animals are feeding in the best pastures. As parsnips contain six per cent. more mucilage than carrots, the difference may be sufficient to account for the superior fattening, as well as butter-making quality of the parsnip. Don observes, that 'in the fattening of cattle the parsnip is found equal if not superior to the carrot, performing the business with as much expedition, and affording meat of exquisite flavor, and of a highly juicy quality; the animals eat it with much greediness. The parsnips are given in the proportion of about 30 lbs. weight, morning, noon and night; the large ones being split into three or four pieces, and a little hay supplied in the intervals of these periods. The result of experiment has shown, that not only in neat cattle, but in the fattening of hogs and poultry, the animals become fat much sooner, and are more healthy than when fed with any other root or vegetable; and that, besides, the meat is more sweet and delicious.'"—*Country Gentleman.*

NORTHFIELD, MASS.

This town is one of the most beautiful in New England. It is the Indian *Squekeag*, and was settled in 1673. It suffered severely from Indian depredations, and was laid waste by them a few years after its settlement. In 1685 the people returned and commenced to build and cultivate the land, but in a few years fresh inroads from the Indians destroyed their crops, burnt their log-houses and scattered the inhabitants, so that for many years it was left alone, but with the unmistakable marks of an attempted civilization scattered over the dismal plain. In 1713, after the erection of Fort Dummer, in its vicinity, the hardy pioneers once more returned and rebuilt the town. A large portion of the land is of an excellent quality. Near the river are two distinct plateaus or plains; one, on the bank of the river, and called interval, or meadow, and the other some third of a mile back, and fifty or sixty feet higher than the meadow. This plain extends about a mile in two directions, and on it stands the thickly-settled portion of the town. The main street continues nearly a mile, parallel with the river, is, we should judge, some twelve or fifteen rods wide, and is ornamented by four rows of the most beautiful trees, mostly of the American elm, but interspersed, occasionally, with the rock maple. Standing about two rods apart, and extending three-fourths of a mile at least, they must number some five hundred trees in all.

It was our good fortune to be called into this beautiful town on the evening of the 22d inst., to have an agricultural talk with the good people at their Lyceum, and in passing through the street our attention was instantly arrested by the noble trees which adorn it, and of which it is our purpose now to give a brief account.

In the year 1811, a young man, born in Boston, and there educated to practice law, found himself surrounded by many already possessing "nine points" in the essentials of practice, if not in the substantial acquirements of the mysterious profession. So he cast about to see where he should go to carve out his fortune, and his good genius directed him to Northfield, Mass. There he found the Connecticut, with its green and fertile meadows, higher up a plain about a mile in length and half that distance in width, bounded at each termination of the mile by a limpid brook, sparkling and fresh from the hills which boldly rise from the edge of the plain.

In this lovely valley was once, undoubtedly, a lake, and this plain was made up of the debris of the hills and the alluvion of the river, gathered and deposited through long ages of passing time. In form, nothing could be better adapted for planting a town than this spot. Stretching along on the bank of the river, it gave access to it to a large

proportion of the settlers, and on the other side of the street, fine lots for buildings and farms, and a way to the rich grazing lands farther back. The water was pure, wood for timber and fuel abounded on the hills, while the prospect down the winding valley of the river, or away upon the receding mountains, was lovely in the extreme.

But though the hills and the banks of the river were covered with trees, there were none on this plain, where the early settlement was commenced. Houses had been erected, and the lands cultivated, on either side of the broad road, but the sun fell with unobstructed power, or the winds whirled the dust into the traveller's face.

At the period of this young man's settlement in the town, these lands had been cultivated about one hundred years, and thrifty farmers occupied them, and were gradually increasing their worldly goods, and drawing around them more of the comforts and elegancies of life. But even at this time, the plain was still destitute of trees and shrubs; not a flower, planted by the hand of man, not even a rose, could be found. No ornamental tree, or shrub, or climbing plant, cast a shadow in the burning sun. The road-sides were encumbered with cast off implements of husbandry; the relics of an ancient log house, or some dilapidated vehicle, and among these, the burdock and thistle, the mullein, milk weed and johnswort, were flourishing in rank luxuance.

Such was the general appearance of the place in 1813, about three years after this gentleman entered it, with the intention of making it his future home. There was within him a love of the beautiful in rural life, which the scene before him aroused into action; and after arranging the whole matter in his own mind, he called on some of the farmers with whom he had become acquainted, on the minister, the physician, and others, and proposed to them to plant four rows of the American Elm, hundreds of which, young and thrifty, were then standing on the banks of the river, through the entire length of the street! By most, the proposition was cordially received, and they were ready to lend a helping hand in the work. But by others it was fiercely opposed, and denounced as "a d——d federal trick"—it being during the war, when parties were strongly arrayed against each other, and when burning jealousies were more common than a desire to embellish and increase the comforts of home. But a survey was made, the lines were struck, and the work went on. The farmer came with his team, the lawyer, and doctor, and minister, and store-keeper came with their implements, and in a ew days the noble work was accomplished. But here and there, in front of certain premises, there was a gap! and shot was threatened to be thrown if these public benefactors broke ground there! An so they passed them by, and broke ground where no guns were charged, or threats made, and the gaps stood as living remembrances of the hostility to the work. The traveller, however, will find no vacant places now—they were afterwards planted with maples by the recusants, and God's sun and rains have matured them into lofty, spreading trees, along with the rest.

There are now four rows of trees extending the whole length of the village, with a carriage-way between the two centre rows, and foot-walks between each outer row and the ornamented grounds in front of the substantial dwellings of the place. The once barren plain is now a rich gem, whose surroundings are the fertile hills, covered with verdure in summer, and dotted with cattle and sheep, or dark with the forests which spring from their sides.

And who was the enchanter that touched and transformed the scene? It was THOMAS POWER, now, and for a long time, the efficient and kind-hearted Clerk of the Police Court, in Boston, whose sympathies know no limits wherever a kind word or a good deed may benefit his kind. We have little reverence for kings, or bishops, or men of high estate, merely as such; but to a nobility like this, we pay the homage of a grateful heart. He has erected a monument more enduring than brass, —for when the trees which he planted shall have mingled with the dust, children's children will repeat in delightful remembrance, the name of THOMAS POWER.

For the New England Farmer.

MEETING AT CHELMSFORD.

MR. EDITOR:—On the evening of Monday, the 21st inst., there was a public meeting of the Chelmsford Farmers' and Mechanics' Association, in the Town Hall. An interesting address was delivered by Hon. Simon Brown. After the address, there was a discussion, in which Dr. Bartlett, Mr. Hodgman, Rev. Mr. Bromer, of Chelmsford, Dr. Reynolds, and Jacob B. Farmer, of Concord, and the orator of the evening, participated. The speakers showed that they were accustomed to the discussion of scientific, as well as practical subjects—that they were in the habit of thinking, and discriminating, and making careful observations. The hall was well filled by ladies and gentlemen, and the meeting was presided over in a very felicitous manner by Otis Adams, Esq., a gentleman who has the right tact for a presiding officer. He has much dignity and courtesy, and a great fund of mother wit. The fact that so large a number of the good people of this town assembled on a cold evening, when the roads were piled up with snow, shows a deep interest in the subject, and an earnest desire to obtain knowledge Such meetings cannot fail to be useful. They tend to impress upon the young the importance of making themselves acquainted with the various branches of knowledge pertaining to agriculture. They tend to elevate to a higher rank in their estimation, the business of farming, and to give it that importance and dignity which intrinsically belong to it. When men of learning, talents and enterprise, will devote to agriculture the same energy which they

have hitherto devoted to professional pursuits, to commerce and to politics, they cannot fail to succeed, and at the same time, to give a character and influence to the business, which will induce ambitious and enterprising young men to engage in it, instead of resorting to the city, and burying themselves in dark and dingy counting-rooms, and inhaling the villanous smells and gases of foul docks, and mouldy cellars, and smoking lamps, instead of the pure air of heaven in the open fields, and entangling themselves in the mysteries and anxieties of trade, in which nine out of every ten are sure to fail. It is such men that agriculture needs, men, who, after acquiring a good education, and cultivating all their faculties in the best manner, shall then devote the dew of their youth and the strength of their manhood to the cultivation of the soil. Men who have acquired wealth by other pursuits, and then engage in farming to gratify their taste and amuse their fancy, will never do much to improve practical agriculture, or raise the character and standing of the farmer. R.

For the New England Farmer.

RURAL ECONOMY OF THE BRITISH ISLES—No. 1.

SOIL AND CLIMATE.

MR. EDITOR:—I shall attempt, in a few numbers, to interest you and your readers with such facts as I can collect respecting the rural economy of England, or rather of the British Isles.

In the first I shall endeavor to give some account of the theatre of agricultural operations in these Islands—the soil.

The British Isles have a total area of 77,394,433 acres. England proper has about thirty-two million acres. But these seventy-seven million acres are far from being of uniform fertility; on the contrary, they exhibit greater differences than can be found in any other country. England alone forms about one-half of the whole territory, while Scotland and Ireland divide the remainder between them in nearly equal proportions. Each of these three grand sections should itself be divided in respect to farming, as in other points of view, into two separate parts, England into England proper and Wales; Scotland, into Highlands and Lowlands; Ireland into south-east and north-west regions. Enormous differences exist between these different districts.

Of the thirty-two millions of acres in England, two millions and a half are, and remain, entirely unproductive, having hitherto resisted all attempts at cultivation. Of the remaining twenty-nine and a half, two-thirds at least are ungrateful and stubborn lands, which human industry alone has subdued.

We pause to ask, whether the soil of New England, which by so many is considered such poor farming land, is naturally inferior to that of Old England?

But we will be more minute in our description of the soil of the British Islands. The southern point of the Island, forming the county of Cornwall and more than half of Devonshire, is composed of granite soils. There, in the ancient forests of Exmoor and Dartmoor, and in the mountains which terminate the Land's End, and those verging on the Welsh peninsula, are nearly two and a half million acres, of little value. In the north of England are more mountains, which separate England from Scotland, and ramify through the counties of Northumberland, Cumberland, Westmoreland, and parts of Lancashire, Durham, York and Derbyshire. This region contains upwards of five million acres, worth scarcely more than the former.

Wherever the ground in England is not hilly, it is, in general, naturally marshy. The counties of England and Cambridge, now reckoned especially the first among the most productive, were formerly but one vast marsh, partially covered by the sea, like the polders of Holland opposite. In other parts of the Island are extensive sands abandoned by the sea,—the county of Norfolk is nothing else. There remain in England, the undulating hills which form about half its whole surface, but these lands are not all of the same geological formation. The Thames basin is composed of a stiff clay, called London clay. The counties of Essex, Surrey, and Kent, as well as Middlesex, belong to the clay-bed called in England, *stiff* land, and well known as exceedingly troublesome. Left to itself, this clay never dries in England, and when not transformed by manure, and improved by draining, farmers despair of making anything of it. It prevails throughout the south-east of England, and makes its appearance in many parts of the midland districts, as well as in the east and north.

A long band of chalky lands, of indifferent quality, runs through this great bed of clay, from south to north, forming the greater portion of the counties of Hertford Wilts and Hunts, the chalk showing itself, almost in a pure state, on the surface.

The sandy clay lands, with calcareous sub-soil and the loams of the lower valleys, occupy only about ten millions of acres of England. The rivers being short and the valleys confined in the narrow island, alluvial lands are rather scarce. It is light soils which predominate in England, what were formerly called, *poor lands*, or moors

I beg the reader to dwell on this description of the soil of England, and to think what cultivation has made it. Now, a few words of the climate. The mists and rains are proverbial; its extreme humidity is little favorable to wheat, which is the prime object of all cultivation; few plants ripen naturally under its dull sky; it is propitious only to grasses and roots. Rainy summers, late autumns, and mild winters, encourage, under the influence of an almost equal temperature, an evergreen vegetation. Here the action of climate stops—nothing need be asked of it, which demands the intervenuion of that great producing power—the sun.

How much more propitious is the summer and autumn climate of New England to ripening the fruits of the earth when the farmers, by deep tillage counteract the effects of drought. I will not say that the New England winter climate is as favorable for the preparation of land, for crops, or for the keeping of stock, as that of our father-land.

A few words concerning Wales, Scotland and Ireland. Wales is a mass of mountains covered with barren moors. Including the adjacent islands and that part of England bordering upon it, it contains five million acres, only half of which are capable of cultivation.

The two divisions of Scotland, the Highlands and Lowlands, are pretty equal in extent, and contain about ten million acres each. The Highlands, without exception, form one of the most unfertile

and uninhabitable countries of Europe. There is an enormous granite rock cut up into sharp peaks and deep precipices, and to add still more to its ruggedness, extending into the most northerly latitudes. More than three-fourths of the Highlands are uncultivated, and the small portion which it is possible to work, requires all the industry of the inhabitants to produce any thing.

Even the Lowlands of Scotland are far from being every where susceptible of cultivation. Numerous ridges cross the country. Out of ten million acres, five are nearly unproductive; the other five million exhibit almost everywhere prodigies of the most improved farming, but only two million and a half are of rich and deep soil; the rest is poor and thin. As to climate, snow and rain fall in great abundance, and the fruits of the earth have only a short and precarious summer for bringing them to maturity. Edinburgh is in the same latitude as Copenhagen, and Moscow.

Of the two divisions of Ireland, that of the north-west, embracing a fourth of the island, and comprehending the province of Connaught, with the adjacent counties of Donegal, Clare, and Kerry, resembles Wales, and, in its west parts, the Highlands of Scotland. Here, again, are five million of unsightly acres, the frightful aspect of which has given rise to the proverb, "Go to the devil or Connaught." The larger or south-east division, embraces three-fourths of the island, and includes the provinces of Leinster, Ulster and Munster, and equal to about fifteen million of acres, is at least equal in its natural fertility to England proper. It is not, however, equally good, and the amount of humidity there is even greater than in England. Extensive bogs cover about a tenth of its surface and tracts of mountains another tenth. In fact, only twelve and a half of the twenty millions of acres in Ireland are cultivated.

I think I have shown from the above, that, from whatever causes, the agriculture of Great Britain excels that of other countries, as it certainly does excel the agriculture of all other countries, its excellence is not owing to the natural fertility of the soil, nor to the climate of the British Islands.

Having shown this fact, I shall now proceed to show *how* it is that the agriculture of England is richer than that of any other country, and then inquire *why* it is so. M.

For the New England Farmer.

PASTURES IN CHESHIRE CO., N. H.

MR. EDITOR:—On seeing an article in your last, bearing the signature of "R. B. H.," concerning the land in Cheshire County, N. H., it occurred to me that I might give the gentleman some information on the subject desired. I was born and bred in the "Old Granite State," have lived twenty-five or thirty years in a town adjoining Jaffrey, and my business has been such that I have had occasion to visit that town, as well as others in the county; have visited the Monadnock a number of times, and call myself well acquainted with the land in this vicinity. If New Hampshire makes less butter and cheese than she did formerly, it is no doubt owing to the increasing manufactures; but, the pasturing around the Monadnock, in my opinion, has been, and now is, in good condition. I was very much surprised to hear that cattle have to resort to the cane-brakes and swamps for sustenance. Pray, sir, did you not find this white grass on the mountain peak instead of pasture land, and was it as poisonous to grasshoppers as cattle? However, there may be some barren spot of the kind that has not yet come to my knowledge; if so, and "R. B. H." is the unfortunate possessor of it, I would advise him to burn it, or abandon it for the West at once.

JUDAS WILD.

THIRD LEGISLATIVE AGRICULTURAL MEETING.

REPORTED FOR THE FARMER BY E. H. ROCKWELL.

[The first meeting of this series was held at the State House, on the evening of Tuesday, Jan. 15, and was organized by the election of an "Executive Committee," to give direction to the business of the meeting. This committee consists of Messrs. CHARLES L. FLINT, Secretary of the Board of Agriculture, Messrs. JABEZ FISHER and VELORUS TAFT, of the Senate, and Messrs. R. P. WATERS, SAMUEL L. PARSONS, and EDWIN COOLEY, of the House. No definite subject for discussion having been announced, remarks upon several topics were made by Messrs. PARSONS, of Ludlow, TAFT, CHOATE, HALL, DARLING, MANSFIELD and FISHER.

The *second* meeting took place on the 22d inst, and the subject discussed was *Farm Implements*. Mr. FLINT illustrated a lecture on Plows and Plowing by various diagrams of plows and other implements, and Messrs. PROCTOR, DODGE, WITHERELL and PARSONS, of Ludlow, engaged in the debate.]

The third regular meeting of the Legislative Agricultural Society was held in the Hall of the House of Representatives, on Tuesday evening, at 7 o'clock.

The number in attendance at the hou[illegible]nted was very good. The subject presented f[illegible]consideration of the meeting, was, "*Farm Imp[illegible]ents. Plows, and the Preparation of Land.*"

The meeting was called to order by Dr. FISHER, of Worcester, a member of the Executive Committee who introduced to the meeting, FRANCIS DE WITT, Secretary of State, as the President of the meeting, who briefly stated the subject proposed for discussion, and invited gentlemen to express their views upon it.

C. L. FLINT, Secretary of the Board of Agriculture, suggested that at the last meeting there were some doubts expressed as to whether there had been any actual improvement in plows, for the last hundred years or more, and he believed there might be some one now present who would give some reason for those doubts.

Mr. JOHN BROOKS, of Princeton, said that he did not call all changes improvements, and he did doubt whether even going back a century, there had been as much improvement in plows as was sometimes claimed. The Roman plow was made to turn the furrow from the land plowed. *Perhaps* our modern plow would do it better, but he was not quite sure of it. He was not sure that on some sandy land, like that of Cape Cod, the old Roman plow would not be better than the modern plow. Sixty years ago, or more, Mr. Jefferson wrote a letter to Sir John Sinclair, giving a description of

the mould-board of a plow as it should be. He described it as forming a perfect wedge, which was the true scientific principle. Mr. Brooks said he did not know of any plow constructed on that principle now, and therefore he thought there was a doubt as to whether there has been any improvement in the mould-board.

A plow should run easy, and do its work well at the same time. The rubbing surfaces are the same—iron and earth—in the ancient and modern plow. The new one does not run so easy as the old one therefore, if it is of the same construction; because it is heavier. A wooden plow with a wooden mould-board runs easiest. A wooden shod sled runs easier than one shod with iron. Wood and earth produce less friction than iron and earth.

The modern plow has not a sufficient angle at the land side. The Michigan plow, however, leaves the land light, and in that respect operates well. The old Dutch plow, for the same reason, was a good one. If these are facts, he could not see what improvement there had been in plows. The modern plow is heavier, and does not do its work any better, nor generally so well as the ancient one, of the same construction. Though changed within the last sixty years, he could not see that it had been improved. On the subject of plows, at this point in his remarks, Mr. Brooks cautioned against buying plows merely on the recommendation of others. He had paid $150 for plows within the last fifteen years, which were not worth two cents to him now.

He next compared the ancient and modern *Hoe*. He thought the ancient one quite as good as the modern. The modern one is heavier. He admitted that the old-fashioned one would clog more than the new; but then the new was heavier, and was more liable to get out of repair. The new hoe costs more than the old, and the amount of labor expended in working with a hoe which clogs—as the old one does—was balanced by the increased expense of the new hoe. Labor must be employed to earn the extra amount of money to buy a new fashioned hoe, and that labor which would be necessary to earn the extra money, would do the work with the old hoe. So that it amounts to the same thing whether you expend a certain amount of force with the old hoe, or buy a new one and then spend the same amount of force or labor to pay for it. This argument seemed to excite some incredulous smiles on the part of the audience, and gave rise to some cross-questioning; but nothing was elicited.

Mowing Machines were next spoken of, and these Mr. Brooks thought were an improvement wherever they can be used. There were disadvantages with them, however, the greatest of which he had found to be that more men were needed to secure the hay when dry, than could be profitably employed while the grass was being cut. He had found that a machine would do the work of six men at a cost of about half that which would be paid to the men.

The Independent Horse Rake was another implement which he considered the greatest improvement that he had seen for thirty years. He had raked with one over stone heaps as high as the axle-tree of the machine, into hollows eight or nine inches deep. They were the only implement that he considered a genuine unmitigated saving.

Mr. SPRAGUE, of Duxbury, defended modern plows. The cattle were much farther from the plow, as formerly made and used, and therefore needed a driver, and the handles of old fashioned plows were much longer than those of modern ones. Modern plows, therefore, do the work much easier; and most farmers are of opinion that one yoke of cattle with a modern plow, will do as much work as two would do with an old fashioned one. The iron part of a modern plow can be renewed for about three dollars, and that, as a matter of economy, is one improvement. In conclusion, Mr. Sprague expressed the opinion that the gentleman from Princeton had utterly failed to show that there had been no improvement in the plow and hoe.

Col. NEWELL, of West Newbury, did not understand the proposition of Mr. Brooks as to hoes, unless he meant that a man must wear out one of each kind every day in order to make the old hoe as profitable as the new one.

As to plows, the mould-boards of modern plows are varied, and adapted to either sandy or clayey land. He was not certain as to the superiority of the Michigan plow. The harrow would sometimes bring the first furrow to the top. The share of those first made was not wide enough. As to the draft of a plow, he was certain that a large one,—Eagle, No. 25, for example—would turn a furrow 7 inches by 12, with as little power as a small plow. He had seen that matter tested by experiments which occupied two days.

He agreed that the *Independent Horse Rake* was a good one. In the use of mowing machines, he had tried oxen, and found them able to mow an acre in an hour, and to do it as well as horses. He had found no difficulty in keeping his men employed throughout the day.

Mr. HARVEY DODGE, of Sutton, was surprised to hear his friend from Essex speak of using a harrow after a Michigan plow. The road-maker uses a harrow to bring the earth to a consistency. The real Michigan plow does its work perfectly. All that is needed after it to smooth the land, is half-a-dozen white birches, put into a straight stick, and drawn over the land, to fit it to sow or mow. Three heavy yokes of oxen are needed on Worcester county land, to draw the Michigan plow.

The *Horse-Rake* he considered among the greatest improvements of the age. No one implement is helping farmers so much. He preferred the revolver. No man has said so many good things by way of suggestion to farmers as the horse-rake has said. It suggests the removal of stones from the surface of the land, and of stone walls which are now used to partition off mowing lots, so as to bring them into one, and thus restore the land to use, which is now occupied by them. And when the land is thus prepared for the horse-rake, it is also prepared for mowing machines. He understood that this rake, though claimed as a Yankee invention, was really the invention of a Congo negro, who whittled out one with a jack-knife.

As to the pitch-fork of old times, we have not bone and muscle enough now to use one such as was used in 1796; and as to the wooden plow, such a one as he could take from his hen-roost, the man could not be found who could push it into the ground. To use one needed severe labor, and practice from boyhood. Holding a breaking-up plow was once spoken of as the most severe kind of labor. But it is not severe labor to put a Michigan plow into the soil to the depth of 11½ inches. He liked to bring up the soil from that depth, and put the worn-out soil underneath. He preferred the earth thus brought up for his compost heap, to any washes he could find on his farm.

Mr. BROOKS again spoke. He wanted some gentleman to give a *reason* why the modern plow run easier than an ancient one—*of the same construction.* The plow with a small angle, and wedge-shaped, will run easier; but it does not do the work well if it is narrow behind. The modern plow does not run any easier than an ancient one, he repeated, because the rubbing surfaces are the same, and it is heavier. It runs as much harder as it is heavier. He had seen no *reason* to show that there has been any improvement in plows. Gentlemen had only made assertions. He again cautioned against buying plows or other farming tools merely on the recommendation of some one man. He once bought a plow for $15, and a few days after offered to sell it to the maker for $3, and he would not take it. He paid $141 for a mowing machine, and could not sell it to the maker for $40.

Mr. SPRAGUE doubted whether a plow went any easier for being narrow behind, as Mr. Brooks had suggested.

Mr. S. L. PARSONS, of Northampton, said that a plow, "of the same construction," would be the same plow, and, therefore, there was no real comparison between an ancient and a modern plow, by the gentleman from Princeton. He considered the Corn Planter and Fertilizer as one of the most economical and useful implements. A machine costs $15; and a man and horse can plant from six to eight acres in a day. He did it for several days in succession last Spring, and sold the machine when he got through for all it cost. He had used a mowing machine three seasons. He cut grass enough for other people, in the first season, to pay for it. The second season he cut 180 acres with it, and would not sell it for $1000, if he could not get another. One pair of horses, with Ketchum's new machine, will mow as much as two with the old one. Last season he mowed 225 acres at a cost for repairs of $1,25, or less than a cent an acre. It cost $100. He found no difficulty in keeping the men, necessary to get the hay in, employed during the rest of the day. The most he had ever cut with a machine in a day, was 12 acres in 6¾ hours. The fastest that he had ever mowed with it was in cutting 4 acres in one hour and fifty-seven minutes. The fields in Northampton are smooth and large, sometimes long and narrow, so that the machine can go 160 rods in one direction. He used Ketchum's new mower last year. The crop would vary from one to three tons to the acre. Could cut short, fine grass, or rowen, perfectly well. Last season mowed 60 acres of rowen, at the rate of one acre in 33 minutes and 17 seconds. The maker of the Corn Planter is E. C. Fairchild.

Mr. W. J. BUCKMINSTER added some testimony to the facility with which rowen could be cut with a mower.

General SUTTON, of Salem, had used Ketchum's Machine. It cost $125. The repairs the first season amounted to two or three dollars; last year, not a cent, and it is now in good order.

Mr. BROOKS preferred Manny's Machine, because it does its work as well, and draws easier.

Mr. BUCKMINSTER spoke of witnessing the working of Manny's Machine in a field of Mr. Porter, in Essex county. Mr. Porter uses both Ketchum's and Manny's, and says that Manny's can be used with two-thirds the power required for Ketchum's.

Mr. WHITNEY, of Ashburnham, spoke of plows, and thought one reason why the modern plow produced less friction than the old one, was because the share was of cast iron instead of wrought iron. On old plows with wooden mould-boards, there used to be strips of iron, which produced friction.

Mr. PARSONS, of Ludlow, thought the discussion of the evening had proved that a plow of modern construction would have run as easy seventy-five years ago as it will now!

Dr. FISHER, of Worcester, thought the principle on which the plow works the land to be wrong, and that some other mode of doing it will yet be invented. The spade operates on the true principle, by loosening all the soil and hardening none.

Mr. BROOKS congratulated himself that the last gentleman was approaching to his own views, in admitting that the plow was not perfect.

For the New England Farmer.

LIGHT WANTED ON WILLOWS.

MR. EDITOR:—A statement is going the rounds of agricultural and other journals, that basket-willow is imported into this country to the amount of five or six millions of dollars worth annually; and recommending the willow crop for general cultivation. In the last volume of the statistics of our Commerce and Navigation, on the 220th page, I find the amount of manufactured willow imported, put down at $132,658; of unmanufactured, at $45,459. Is there any other willow imported than that which is published in this volume, by our national Congress? Are these figures reliable? If there is only forty thousand dollars worth of the raw material imported, and if that is a good index of the present demand for willow, will not extensive willow planters, who have gone into the business upon the belief that there is an unlimited demand for it, be greatly disappointed? What is the origin of this six million statement? Is there another Multicaulis speculation in the wind? As you editors know every thing, please enlighten one of

THE PUBLIC.

For the New England Farmer.

MR. S. BROWN:—*Dear Sir*—At your request, I offer the following in reply to the editor of "The Homestead:"

Like your correspondent, W. C., I am curious to know who is the author of the statement he refers to. I have seen it in two New York papers—the *N. Y. Weekly Times* and the *N. Y. Tribune*. I had, before receiving your letter, made up my mind to write to the editor of the *N. Y. Weekly Times*, and ask for better evidence that *so large* a quantity of willow is imported from Europe, as is given by their correspondent, in the words, "from the best data within our reach." I have more than once told Mr. Buckminster, of the *Massashusetts Ploughman*, that there is not over two hundred thousand dollars worth of willow and willow-baskets imported from Europe annually; that the baskets cost considerable more than the willow, and are retailed here at about one-third the price they can possibly be manufactured at. I believe I made a statement in your office, which, in substance, was the same. You will observe that my statement corresponds with that found in the Statistics of U. S. Commerce and Navigation. I did not get my information from that work, but from a careful collection of information from reliable persons, who, like myself, are interested in the manufacture of willow.

In the United States there is used in casing glass bottles and demijohns, and in the manufacture of willow-baskets, *not more* than $50,000 worth of willow, of which $17,000 worth are grown in Delaware, Pennsylvania, New York, Ohio, Rhode Island and Massachusetts. I have no knowledge of any being grown in Vermont for more than three years past. Messrs. Parker and Colby, of Vermont, are spoken of in the article referred to by your correspondent. Mr. Colby is the inventor of a machine for peeling willow, the cost of which is said to be $200.

To save me the trouble of answering a number of letters, from persons who ask for information in regard to Mr. Parker's plantation and Mr. Colby's plantation and peeling machine, permit me to offer to all who inquire of me, the following:

From letters received by me, from Erastus Parker, and from a relative of Mr. Colby, I conclude that their experience in willow culture is small, and their knowledge of the same very imperfect. I have seen the sketch and description of Mr. Colby's peeling machine, which he has published, and have my doubts of its use for the purpose it is intended, but desire to avoid saying anything that would injure the inventor. When the peeling machine has been used a whole season, and the willow peeled with it has been worked up into baskets, its real value can be properly estimated.

Yours, with respect, JOHN FLEMING.

Sherborn, Mass., Jan. 28, 1856.

For the New England Farmer.

"ENGLISH LAPSTONE POTATOES."

MR. EDITOR:—In the *New England Farmer* of January 26th, I noticed an article with the above title, in which the writer asks others who have tried the variety spoken of, to give the results of their experiments. I am one of that number who bought a few of the "Lapstone Kidney"—as they called them—at a high price, believing the statements that were made concerning them. I bought some of the "Fluke Kidney" at the same time, in regard to which I may have a few words to say at another moment. I planted the "Lapstones" in a field with over sixty other sorts, named varieties and seedlings, in rows three and a half feet apart, hills two feet apart in the row; the manure used was the same throughout the field, a large spoonful of guano to a hill; they were planted about the first of June, hoed twice, and all the weeds kept down. The land was high and loamy, and suffered a little from the drought. The result, on digging, was very unsatisfactory, they were, emphatically, "small potatoes and few in a hill;" the yield was not over half that of the Davis' Seedling, State of Maine, and other first rate sorts, while it was not one third as much as some of the coarser sorts, such as "Jenny Lind," "Rhode Island Seedling," "Bullard's Seedling," &c.

What I did get, I consider fit for nothing but to feed to stock or pigs; they are yellow meated and very strong, and I confess it is more than I can do, to eat such a potato, after being used to the State of Maine, and other good sorts. They rotted with me, a good deal, both before digging, and after being put into the cellar. I consider the variety unworthy of attention, for we have more than twenty local sorts that are infinitely superior. I try all kinds, and hold fast to those that are good. May have more to say on the subject of potatoes at another time. J. F. C. H.

Newton Centre, Jan. 8th, 1856.

PLANTING FRUIT TREES FOR OTHERS.—The Spaniards have a maxim, that a man is ungrateful to the past generation that planted the trees from which he eats fruit, and deals unjustly towards the next generation, unless he plants the seed, that it may furnish food for those who come after him. Thus, when a son of Spain eats a peach or pear by the road-side, wherever he is, he digs a hole in the ground with his foot, and covers the seed. Consequently, all over Spain, by the road-sides and elsewhere, fruit in great abundance, tempts the taste, and is ever free.

Let this practice be imitated in our country, and the weary wanderer will be blest, and will bless the hand that ministered to his comfort and joy. We are bound to leave the world as good, or better than we found it, and he is a selfish churl, who basks under the shadow, and eats the fruit of trees which other hands have planted, if he will not also plant trees which shall yield fruit to coming generations.—*Home Circle.*

For the New England Farmer.

VENTILATION---PEQPLE OF TAOS.

FRIEND BROWN:—Occasionally I receive your Monthly *Farmer*. The January No. came yesterday; soon as time to light up for evening, I took the paper and "put her through by candle-light," before going to rest.

The reading of Judge French's "How to keep your House Warm," in memory, carried me back with a rush, to the "days of auld Lang Syne," and faithfully daguerreotyped to the mind's eye the old kitchen fire, with its massive andirons, to bear up the fore-stick of the size of a good mill-log, of the heavy shovel and tongs, and stout wooden handspike that always, when not in use, occupied their place in the corner by the oven. Then there was the huge rock maple back-log, four feet long, and in girth, the size of a forty gallon whiskey-barrel, that required the strength of the "hired hand" and all the boys of the family to drag in at night on the stout hand-sled. Then there was the high-backed *settle* he has so graphically described. How many long winter evenings, when a freckled-faced boy, I have sat upon that *dear old settle*, in poring over Shakspear, Hume, Brissot and Smollet's—(I am not sure I've got the names right end foremost)—History of England, Gibbon's Rome, the Spectator, and other standard works. These things, "mind me of departed joys ne'er to return." They, like high-heeled shoes, and hoo—by jingo, I liked to have written "hooped petticoats"—but they have come back again, but no matter, the high-heeled shoes have had their day, and so have the old-fashioned kitchen fire-places. Peace to their ashes!

The Judge has much to say on ventilation; theoretically, we suppose, all very correct. He says "a healthy man requires about *fifty-seven hogsheads* of air in twenty-four hours;" and for the man to retain his health, we suppose he would have us understand, the fifty-seven hogsheads of air must be pure.

Now, Mr. Editor, I am not going to have any controversy with my good friend Henry, but I want to tell him a bit of a story, and then ask him a question or two.

The story, I copy from Governor Merriwether's last year's Report to the Commissioner of Indian Affairs. Merriwether is Governor and Superintendent of Indian Affairs in New Mexico, U. S.

The Governor says in his report, "Having visited several pueblos, or villages, and believing that these people differ in some respects from any other Indians to be found on this continent, I beg to be excused for giving a minute description of the pueblo of Taos, which I visited in the month of March last. This pueblo is situated in the valley of Taos, on a small stream which supplies water for irrigation and other purposes, and the number of inhabitants may be set down as something over twelve hundred. On my arrival I found that this Indian town contained but two dwelling-houses, situated upon opposite sides of the creek, and each sufficiently large to accommodate over six hundred people. They are built of adobes, or sun-dried bricks; each covers an area of about two acres at the foundation, and are five stories high, with but one entrance through the external walls and but one window, and both of these open into the Chief's or Governor's room. After ascending to the height of one story, there is an offset in the walls, and the size of the house is lessened around its entire circumference to the depth of the external tier of rooms, about fifteen feet, and this continues to be the case at the top of each story, until the summit is reached. The tops of these houses are flat, and the offset in the walls at the top of the first story affords a fine terrace or walk, about fifteen feet wide, extending entirely around the building, which would make it, say four hundred yards in length, and the residents of each story have a similar promenade or walk, though lessened in length as you ascend nearer the top. The entrance of these houses is from the top, which is effected by ladders resting on the ground in the first instance; but after ascending to the top of the first story, the ladders intended for the accommodation of those residing in the second story are placed upon the roof of the one below. Each family has its room or rooms partitioned off by walls, of sufficient strength and thickness to sustain the accumulated weight above, and through these partition walls are doors of communication with each room of the house, *but there is no other means of ventilation except through small trap-doors in the roof.* These strange buildings form perfect labyrinths, and as the interior apartments are quite dark, it might be difficult for a stranger to find his way out; *but notwithstanding the want of ventilation, the inmates appear to be quite healthy and vigorous*, and the number of *children* swarming around was *astonishing.*"

And now, Judge, can you tell us where these six hundred human beings, burrowed in these hives (like so many woodchucks in their winter quarters) obtain their fifty-seven hogsheads of pure air each, every twenty-four hours, and how it is that in these close, unventilated quarters, there are such astonishing numbers of healthy, robust children!

Yours truly, LEVI BARTLETT.

Warner, N. H., Jan. 22, 1856.

REMARKS.—The Monthly *Farmer* is regularly sent to your address, and has been, for a long time, Who appropriates it? Please inquire.

For the New England Farmer.

THE WEATHER.

That distinguished personage, the oldest inhabitant, scarcely remembers the time when the earth was covered with a body of snow so hard and impenetrable. And so it is all along the coast, from Maine to Carolina. Not only snow, but cold of a respectable character, say from ten to twenty degrees below zero. I remember the famous cold Friday in the winter of 1810-11—when the mercury was down only to seven degrees, and the wind from the north quite piercing—it was thought almost unendurable. Going home from school on that day, my cheeks were so whitened with frost as to make a sensible impression for several days.

My principal purpose in adverting to the weather at this time, is, in confirmation of the views of Mr. J. C. Gray, in his essay on the climate of New England—as deduced from the diaries of Rev. Dr. Smith, of Portland, the venerable Dr. Holyoke, of Salem, and the accurate Mr. Nathaniel Lord, Jr., of Ipswich—forming a continued series of observations from 1750 to 1850, a period of one hundred years. The result of this examination is, that there has been no essential change in our climate;—and that the common remarks implying a change, are not well sustained by the facts. For this reason, I welcomed with joy the drifting snow, on three successive Sabbaths, at the commencement of the year—but I am now quite willing that the snow shall dissolve, and soften the sod beneath. What is to be the effect of the adherence of icicles to the trees—excepting so far as the limbs were broken thereby, I have no conjecture—but do not apprehend any evil consequences. We could afford to sustain some loss, for the gratification of so splendid an illumination, as was seen when the sun fairly shone upon these icicles. I have never witnessed a more splendid display of brilliants, at so little cost.

January 20, 1856. ESSEX.

For the New England Farmer.

RURAL ECONOMY OF THE BRITISH ISLES—No. 2.

SHEEP.

In my last number, I spoke of the natural soil and climate of the British Islands; and showed that England owed the excellence of her agriculture to other causes than these. I now go on to show how her agriculture is richer than that of any other country, and why it is so.

The most striking feature of English agriculture is the number and quality of its sheep. This strikes even the passing traveller, on the railway. It requires only a glance to see that the sheep of England are larger, in the average, and must give a much greater weight of meat and wool, than those of other countries. This is an extraordinary fact, and leads to astonishing results. The first object of the English farmer is to keep a great many sheep, and for these reasons; because the sheep, of all animals, is the easiest to feed, derives the greatest benefit from the food it consumes, and gives the most active and rich manure for fertilizing the land, and is valuable for two things, its meat and its wool. England has thirty-five millions of sheep on its surface. Scotland, in spite of all her endeavors, can maintain only four millions. Ireland, which, from its pastures, ought to rival England, reckons, at most, only two millions—and this is one of the most striking marks of its inferiority.

But it is the quality of its sheep, as much or more than the number, which distinguishes England. England adheres to this principle in raising sheep—she makes meat the chief object of production in sheep, and considers wool the accessory. Therefore, in her breeds of sheep, she seeks two qualities: *first*, precosity, or animals which may be fattened as early as one year old, and reach their full growth before the end of the second year—considering that, by this single fact, the produce of her flocks would be doubled—and *second*, she seeks a perfection of shape in her breeds, which renders them more fleshy and heavier, for their size, than the breeds of any other country.

See what results follow from these two principles. Formerly, the English sheep were not fit for the butcher until about four or five years old; and in France, now, the French sheep are not considered fit for the butcher before this age; but the improved breeds of England are now fit for the butcher at from one to two years old. Has not England doubled by this precocity of her breeds, the produce of her flocks without doubling her numbers? But the English sheep are now not only more precocious than formerly, so that the farmer can send two or three to market, where he formerly sent one; but they are broader, rounder, and have a greater development of those parts which give most flesh. This follows—that the ten million sheep annually slaughtered in England yield an average weight of eighty pounds of net meat; and though nearly the same number are annually slaugtered in France, they yield an average weight of only forty pounds of net meat. But this is not all. While the English farmer aims, principally, at the production of meat in raising sheep, such is the greater size and developement of the English sheep, that the clip of wool, from each sheep in England, is fifty per cent. greater in weight than the clip of each sheep in France.

I stated above the number of sheep in England to be thirty-five millions. Therefore, England feeds two sheep on every five acres of her land. France, which, of the two large countries of the world is next to England in agriculture, feeds only two-thirds of a sheep on each five acres of her soil. I stated above that the English sheep yielded double the net weight of meat of the French, and fifty per cent. more wool. Is it not probable, then, that the average return of an English sheep farm is seven or eight times greater than a French one?

Now, two questions fairly arise. Can a country have a rich agriculture, which does not have sheep as a part of the live stock of its farms, and a large part? Can a country have a profitable live stock in the sheep on its farms, unless they have a breed of sheep, which is precocious, and early fit for the butcher, and yields a large net weight of meat, as well as a heavy fleece?

A few words now upon the manner in which England became possessed of her present breeds of sheep. The Leicester or Dishley breed she owes to Bakewell; this is the breed of her plains. The Southdowns, which are the sheep of her hills, she owes to John Ellman. The Chievot is a sheep of the mountains, and I do not know to whom she owes its improvement. Bakewell aimed to produce a breed of sheep which should be precocious, or be early fit for the butcher, and yield a large weight of meat, as well as a heavy fleece. And on his farm at Dishley, after many years of labor and experience, he produced the Dishley breed, animals that may be fattened at one year old, and in every case have reached their full growth before the end of the second year; and to this invaluable quality have added a perfection of shape, which renders them more fleshy, and heavier for their size, than any known breed. They give, on an average, one hundred lbs. of meat, net, and sometimes more. Our sheep, I am told, average forty. The means adopted by Bakewell for obtaining such a marvellous result is known to all breeders by the name of *selection*. It consists in choosing individuals of a breed exhibiting in the greatest degree the qualities desired to be perpetuated, and to make use of

such only for reproduction. At the end of a certain number of generations, following the same principle, the points selected in all the reproducers, both male and female, become permanent; and thus the breed is established. This mode of proceeding appears extremely simple; but what is less so, is the choice of those qualities to be reproduced to arrive at the best result. Many breeders mistake these, and, in a measure, work contrary to their desired object. Bakewell deserved his success, and profited by it. He let his rams for one season for the enormous sum of $50,000. But the wealth he conferred on his country was incalculable. Ellman proceeded on the same principles, which succeeded so well with Backewell, and at the present day the Southdown sheep gives, on an average, eighty to one hundred pounds net mutton. The Southdown has spread widely, and made its way wherever the soil, not rich enough for the Dishley breed, is yet sufficient to provide a proper quantity of winter food, in addition to good summer pasture. It predominates in all districts of lime formation.

The history of the Cheviot sheep is not quite so brilliant as that of the Southdowns and Dishleys. Still the breed is not less valuable than the others. It is a mountainous breed, and its shape is now as perfect as well can be—fattening often now in the second year, and yielding on an average sixty to eighty pounds of excellent meat. Their fleece is white and short. They spend even the winter months on their native mountains, and are seldom sheltered.

These three breeds tend now to absorb all others, and take entire possession of Great Britain. Throughout England, the sheep farmer now seeks either to improve his breed by itself, or by crossing it with others already improved, or else he substitutes one of these breeds for his own—whichever method appears to him most efficacious for increasing precosity and giving roundness of form to his flock.

English agriculture is, then, first of all, rich in its flocks of magnificent sheep. M.

ARE ENGLISH TURNIPS GOOD FOR SHEEP?

MR. EDITOR:—I wish to inquire, through the columns of your paper, if English turnips are good feed for sheep? I have a few sheep of a superior breed, which I wish to raise lambs from the coming spring. I am now giving them turnips, (cut fine,) at the rate of one quart each per day, and some of my neighbors tell me that turnips will kill all the lambs. If you or some of your correspondents will express your views on this particular point, you will greatly oblige A SUBSCRIBER.

New Gloucester, Dec. 21, 1855.

NOTE.—We have fed sheep with English turnips and never knew any harm come to the sheep or lambs either, from them. Probably more lambs die for the want of turnips than from their mothers being fed with them.—*Maine Farmer.*

ANOTHER NOTE.—We agree with you, brother HOLMES. Roots of all kinds are far from being properly appreciated, as feed for stock. Turnips are excellent for sheep, making a most grateful change with their dry food. A *variety* of roots they would probably like better. We have fed turnips to sheep through the winter and spring months, for several years, and found that they were economical and appropriate food.

THE MODEL FARMER.

We cheerfully give insertion to the following communication from one of our agricultural subscribers, descriptive of a model farm and farmer in Dracut. We were not aware that there were any such farms or farmers hereabouts, or indeed this side of New York and Ohio.

MR. EDITOR:—Perhaps it may not be known to the numerous readers of your widely circulated journal, that the largest and most extensive cultivator of the soil in this county is a resident of the ancient town of Dracut. Capt. Nathaniel Fox is one of the largest farmers in the State, and the largest in old Middlesex. He is the owner of nearly nine hundred acres of land, a large proportion consisting of field and pasture. He employs from six to eight men in the winter, the rest of the year from twelve to fifteen, with an addition of eight or ten through the hay season. I will give as near as may be the amount of some of the principal products of his farm. He raises upon an average some two thousand bushels of potatoes, fifteen hundred do. of roots, eight hundred do. of corn, and of other kinds of grain about eight hundred bushels; one hundred barrels of cider, and five hundred do. of winter apples. Under the skilful management of the Capt. (for, by the way, he takes charge in person of all his farming operations,) the increased productiveness of his farm has forced him to enlarge his store-room, although he already has three good-sized barns and several outbuildings. The past year he has put up a large granary, and the largest barn in the country, at a cost of over four thousand dollars. It is built of the best material, and in the most workmanlike manner; it is one hundred feet long, forty-six wide, and twenty-two and one half feet posts; height at ridge-pole forty-four feet; it sets over a cellar ten feet deep, and the wall is built of split stone. He keeps four horses, six oxen, and over seventy cows, which he intends to increase to one hundred; the milk is carried to the Lowell market. From this source alone he realizes over five thousand dollars a year.—*Lowell Courier.*

☞ Well, we should like to see the Capt. and the farm, too.—*Ed. N. E. Farmer.*

For the New England Farmer.

MOWING MACHINES.

MR. EDITOR:—At the farmers' meeting, last week, a gentleman, (a member of the upper House, I believe,) argued that *mowing machines* could not be advantageously used in his region, because, where the best grass grew, the surface was so uneven; and any attempt to level it and make it smooth and fit for the use of the mower, would disclose too many stones. Perhaps there may be a few fields in the central part of the State, just reclaimed from their forest condition, where this is true. Such fields bear a very small proportion to all the lands to be mowed. Take, for instance, the thousands of acres of interval land, on the borders of the Con-

necticut and its tributary streams; take the other thousands of acres of salt marsh on the shores of the ocean; take the many thousands of acres of fresh meadows—on all these, abundant opportunity will be found for the use of such machines. Merely because this gentleman's premises are so situated that he cannot use them, is no good reason why others should not. I was greatly astonished, to hear an eminent farmer from Worcester county say, that he was confident mowers could not be used on half the farms in the Commonwealth. He did not pretend to say they could not be used on his farm, for he admitted, that he had tried every kind that he had heard of, and they had worked well with him. If they had *worked well* with him, why may they not be made to work as well with others? I think the gentleman was a little too much inclined to the opposite in the ground he took; because others had put them forward with approbation. If I have the right idea of that gentleman as a farmer, he will be among the last to discard the use of *faithfully built and well managed mowing machines.* I am clearly of the opinion that our farmers are about to find in these implements, the best means of *labor-saving* they have ever experienced. P.

January 25, 1856.

FOURTH LEGISLATIVE AGRICULTURAL MEETING.

Reported for the Farmer by E. H. Rockwell.

The fourth regular meeting of the Legislative Agricultural Society was held on Tuesday evening, in the Hall of the House of Representatives. The number in attendance was respectable, though not quite equal to that at the last meeting. The subject for discussion was *Manures, and their preparation.* At 20 minutes after 7 o'clock, the meeting was called to order by Dr. Fisher, of Fitchburg, Chairman of the Executive Committee, who invited Hon. Simon Brown to take the chair, who, on doing so, expressed his gratification that there was a more general desire to find something to be used on farms as fertilizers, that would enable farmers to reap larger crops. The attention of scientific men, as well as that of farmers, has been turned to the subject. Guano, lime, bone dust, phosphate of lime and various specifics have been suggested and tried, but they have not always been found to answer the desired purpose. Guano applied to the soil may produce a good crop for one year, and fail to do so the second, and so it is with many other fertilizers. Suppose something could be found which is cheap, and to which all can have access, that would almost invariably result in producing better crops, and it would be thought a great point gained to secure it. He had no doubt such a fertilizer could be found within the reach of all, a fertilizer that could be used without stint, and one which would, at the same time, greatly improve the mechanical condition of the soil, and secure larger crops of all kinds.

That substance lies near almost every farm in the commonwealth, and is nothing more nor less than the meadow muck, sometimes called *humus*, and sometimes *geine;* but best known as swamp or peat muck.

The material of which this muck is composed was stated to be mosses, coarse grass, leaves, aquatic plants, and even branches and trunks of trees gone to decay, and of the fine mould and mineral matter which has been washed down from the hills in the vicinity.

The effect of this muck on heavy lands is to make them lighter, and being black, it attracts and absorbs heat and makes cold lands warmer. Then it contains nearly all the salts which cow dung does, and is worth nearly as much as the fresh droppings of the stalls and the farm. When piled up in heaps it will not ferment and rot as cow dung does, because it does not contain ammonia, as that does; or if it does, it is in an inert state, and does not act on the compost heap. But that fermentation may be readily brought about by either potash, soda ash, or house ashes. Either of them will cause ammonia to be evolved, and then the heap becomes exceedingly valuable. It not only attracts heat, but it cools rapidly, so that after a hot summer day, when a great amount of heat has been attracted and absorbed by rapid cooling, moisture is deposited, and thus the plants have the benefit of that moisture.

It should not be used immediately upon being dug, but it is a good practice to take it from the swamp in the autumn or winter and let it remain in heaps, of the depth of a foot or more until the next spring before it is spread upon the soil. It is well to mix salt and lime or potash with it, putting 30 pounds of potash to a cord; or 15 or 20 pounds of soda ash; or 8 or 10 bushels of house ashes. This, overhauled once or twice and thoroughly mixed and pulverized, will make one of the best possible manures for any farm. He believed with Dr. Dana, "that in whatever view we regard peat muck, it is the basis on which rests the whole art of agriculture. It is this which causes the great difference of physical characters. The chemical characters are uniform. If, then, geine (or peat muck) is the soul of fertility, if it makes soil hot, cold, wet, dry, heavy or light, the proportion and state in which it exists in soil becomes an agricultural problem of the highest value."

Mr. Brown then closed with expressing the hope that gentlemen present would freely give the results of their experience and observation on the general subject of manures and their application.

Mr. Dodge, of Sutton, regarded the subject of manures as of the first importance. He thought that there was scarcely a farmer in the State who did not lose manure from his barn-yard, or neglect to save it, to the value of $5 every year; and if each one lost as much from not saving from his

hog-pen and from about the house, the total loss in the State would be at least $300,000 a year. He thought there was some doubt whether composts were important for making manures. He did, however, use subsoil carted in the fall, to mix with his barn-yard manure, with which he threw in corn buts and other refuse matter, which remains thus mixed till May. He used plaster of Paris and salt, turned on in a liquid state, so as to saturate the whole heap with it. The heap is kept till September, the droppings of the cows being added every day. The plaster is put in to preserve the ammonia, and he found the salt was useful on his land, which, as he expressed it, was hungry for salt. The principal reason for using salt, however, was, that it killed the weed seed. After all, he was in doubt whether the doctrine of composting manures was good. He would like to concentrate his manures as much as possible. There was a great deal of labor required to cart into the yard, muck or subsoil, and then to cart it back again on to the land.

Mr. DODGE stated the result of an experiment that he made in feeding a pair of twin steers for a premium. He tied them in a stable, and the litter used, as well as all the liquid manure, was saved in his barn cellar, and the whole manure was weighed and measured. Ninety-three solid bushels of manure were made in eight weeks from three tons of hay fed to them. He thought the liquid manure from the stables, worth about four-fifths as much as the solid manure.

The chairman suggested that there was little certain knowledge as to the fermentation of manure, and there was a difference of opinion as to whether it should be fermented at all, and as to how it should be preserved and how applied.

Mr. WATERS, of Beverly, was then invited to express his views on the general subject, being referred to by the chairman as a man who mows sixty or seventy tons of hay every year with his own hands. [Guiding a machine.—ED.]

He gave an account of his manner of composting manure. He usually got about 200 loads of meadow mud, in the month of August, out of his swamp, which he allowed to remain in a heap during the winter. After cleaning out his barn-yard in the spring, he spread it to the depth of eight or ten inches over it and under the sheds. The yard is made lowest in the middle to catch the water and hold it. His hogs were allowed to root over the yard in the day time, and the cows were kept in it at night. In the autumn it is brought up into a heap. Sometimes gypsum is thrown into the heap when it ferments. This method of making manure was a great deal of trouble, and he had hoped some more profitable fertilizer could be found; but at present he knew of none that would take the place of this kind of manure; and to be successful cultivators they must do this. He agreed that much was lost every year by not saving manure, probably half a million of dollars, in the state.

Mr. HOWARD, editor of the *Boston Cultivator*, added his testimony to the value of swamp muck. There is a difference of opinion on the subject, which is probably owing to the difference in the article which goes by that name. It varies in its composition, as it is derived from quite different sources. He had seen that, which spread upon the land, precisely as it was taken from its bed, produced as good an effect as the same quantity of barn-yard manure would have done. This muck was taken from a narrow basin in a piece of woods, the growth of which was rock maple, with some chestnut and oak. This basin was simply a receptacle for decayed leaves and the debris of the rock which had washed down into it.

Some muck is formed from moss, one of the simplest vegetables, and, like other aquatic vegetables, it contains little fertilizing matter. This muck is mixed with the resinous matter and some substances from the trees which grow upon it, such as the cedar, spruce, hacmatack or American larch. They contain tannin, which is wholly insoluble, which is imparted to the muck.

Dr. Dana says that muck needs only potash to make it almost similar to cow dung. The potash tends to neutralize the acid and resinous matter, and opens the way by which the oxygen can dissolve that matter. But generally, perhaps, it is better to compost muck. As an absorbent of urine, muck is one of the best substances, because the ammonia which is evolved, is the article most needed to bring it into such a state that its properties can be appropriated by plants.

The manner of composting is a distinct subject. The application of chemistry to agriculture, even if what is called the mineral manure theory, is thrown out, has been of great use by settling the question that the leading value of all manures is the ammonia which they contain. So obvious is that idea, that in some instances the amount of ammonia has been taken as the criterion of value. The question then arises whether ammonia can be excited without fermentation, and whether fermentation can be produced without composting.

The leading object with farmers should be to save all their manures. The value of guano as to its ultimate results, rests still in doubt. The experience of this country does not yet prove what its results will be, when used with other manures. We can draw no inferences from its use in England, because many other substances are used in connection with it there.

In answer to a question put by the chairman, Mr. HOWARD said there might be some doubt as to whether the manures should be piled up and fermentation produced before applying them to

the soil, or whether they should be applied to the land, and plowed in, so that fermentation might take place in the soil. In either case, it is probable that different kinds of fermentation would result. In the latter case, the fermentation would not be active, and would not evolve ammonia. It is a question whether ammonia or nitric acid is the best form in which nitrogen can be applied to plants. If ammonia is the best, the process which produces it is to be preferred. There might be danger that if manures were plowed in before fermentation took place they would work down to so great a depth that they would lose their utility to plants. He did not consider the question well settled, though it is an important one.

Mr. HALL, of Bradford, was called on next, but he said he had never used muck to any great extent because it was not found in his vicincity. He had however seen its effects in a nursery on high and dry ground, and never saw so handsome apple trees of two years growth as he saw there. About four inches of meadow muck were put at the bottom of the trenches in which the trees were set out. He then referred to another application of muck where it is used about some young trees on setting them out, and by which every tree was killed. This shows the difference in different kinds of muck.

Mr. DODGE again spoke, expressing the hope that something might be found to hold the ammonia. He had used saw-dust. He did not think old garden soil worth the expense of moving it to the compost heap or into the barn-yard.

He hoped more attention would be given to saving liquid manures. He then stated how a friend of his in Berkshire was saving all the manure from 800 sheep by box feeding. He believed he had not overstated the amount lost in the commonwealth every year, by not saving manure. He claimed also that farming had absolutely run down this side of the Connecticut river, and is not in as good a state now as it was twenty-five years ago.

The value of subsoil as an absorbent was questioned by Mr. HALL. Mr. DODGE replied that he had tested it, and he knew nothing better for the purpose. He had tried it where lime would not stop the offensive smell of a yard where beef cattle were butchered, and it succeeded perfectly well. Perhaps the subsoil of Worcester county is peculiar in that respect.

Dr. FISHER gave some of his experience on the subject of saving manures. Before he commenced he made himself familiar with the literature on the subject, and then built a barn with a cellar cemented on the bottom and sides so as to be entirely water-tight, having a capacity of about 15,000 gallons. Over this the floor upon which the cattle stand is placed, having about four feet of the width of the floor, where the hind feet of the cattle stand, made of oak and scantling, with spaces of an inch and three-fourths between them, through which all the solid and liquid manure may drop into the cellar. The cattle stand upon this with no bedding, the place where their fore feet are, being always dry and clean. The sink drain from the house runs to this cellar, and water from the roof of the barn and sheds, so that the manure in the cellar is always covered with liquid. The cattle are kept stalled, throughout the year, except that the cows are let out for exercise, and the horses for use. This liquid manure is pumped out, by a chain pump, and carried off in a box which holds a hundred gallons. This box can be filled and carried thirty rods and spread upan grass ground in fifteen minutes.

He considered the liquid worth as much as the same quantity of solid manure. The liquid manure may be applied to vines and trees at any time in a very diluted state. He would apply it to grass in the spring and fall, and immediately after cutting off the first crop of grass. As the cattle in the stable stand with their heads some four feet from the openings into the cellar, he had seen no bad effects upon their health; nor could he discover any smell from the cellar. His pigs have a stall where their manure drops into the same cellar, and his fowls,—some 250—have a separate house.

Mr. W. J. BUCKMINSTER suggested that there might be danger in the application of manure in a too concentrated form. He had found liquid manures to make plants grow faster than any other. As ventilation, for the health of animals, was important, he thought it would be better to have the cellar for the manure in a separate building.

Mr. BROWN, the Chairman, suggested that farmers must exercise a sound judgment in the selection and use of manures, and particularly of muck. The farmer has no mathematical rules to guide him, but must be guided by the light of experience, in a great degree. Meadow mud should be hauled in the winter into heaps, where it may freeze so as to kill the bulbous roots of the swamp grasses it contains. As a deodorizer, meadow muck, when dry, is very valuable. There is no substance, excepting charcoal, which is equal to it. He said he expected to see the day when this muck would be sold in Boston, at a high profit, as a deodorizer.

Mr. FREEMAN, of Orleans, stated that the farmers in his vicinity had long been in the habit of using muck in connection with barn-yard manure, and they considered it equal to stable manure.

Mr. BUCKMINSTER remarked that the meadow mud, properly called peat muck, was that only which was good. He considered the other kind useless.

Mr. BROWN said that the best peat muck, appeared, under a microscope, like thousands of needles, which are in fact the fine roots, so fine as not to be seen by the naked eye. That which has sand in it is least valuable.

Mr. DARLING, of Boston, added his testimony to the value of manures which have been long kept housed.

Mr. NYE, of Sandwich, also spoke of the value of the muck obtained in his vicinity, even when applied fresh from the swamp, and without mixture with other manures.

General TOWNE, of Worcester county, could not agree with Mr. DODGE that agriculture had gone backward within the last twenty years. He would not believe it, CERTAINLY, if Mr. Dodge had not said so; but his opinion is the end of the law. He urged the importance of greater punctuality in meeting, and then, at half past 9 o'clock, the meeting adjourned till 7 o'clock next Tuesday evening, at which the same subject will be further discussed.

GIRLS SHOULD LEARN TO KEEP HOUSE.

No young lady can be too well instructed in anything that will affect the comfort of a family. Whatever position in society she may occupy, she needs a practical knowledge of the duties of a house-keeper. She may be placed in such circumstances that it will be unnecessary for her to perform much domestic labor; but on this account she needs no less knowledge than if she was obliged to preside personally over the cooking stove and pantry. Indeed, I have often thought it was more difficult to direct others, and requires more experience, than to do the same work with our own hands.

Mothers are frequently so nice and particular in their domestic arrangements, that they do not like to give up any part of their care to their children. This is a great mistake, for they are often burdened with labor, and need relief. Children should be early taught to make themselves useful—to assist their parents in every way in their power, and consider it a privilege to do so.

Young people cannot realize the importance of a thorough knowledge of housewifery, but those who have suffered the inconveniences and mortifications of ignorance. Children should be early indulged in their disposition to bake and experiment in cooking in various ways. It is often but a troublesome help they afford, still it is a great advantage to them.

I know a little girl, who, at nine years old, made a loaf of bread every week during the winter. Her mother taught her how much yeast and flour to use, and she became an expert baker. Whenever she is disposed to try her skill in making simple cake and pies, she is permitted to do so. She is thus, while amusing herself, learning an important lesson. Her mother calls her "her little housekeeper," and she often permits her to get what is necessary for the table. She hangs the keys by her side, and very musical is their jingling to her ears. I think, before she is out of her teens, upon which she has not yet entered, that she will have some idea how to cook.

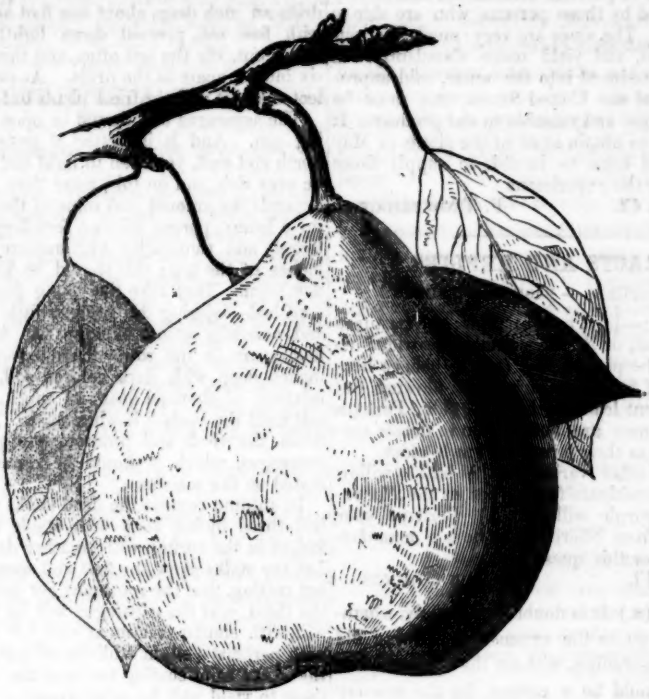
Some mothers give their daughters the care of house-keeping, each a week by turns. It seems to me a good arrangement, and a most useful part of their education.

Domestic labor is by no means incompatible with the highest degree of refinement and mental culture. Many of the most elegant and accomplished women I have known, have looked well to their household duties, and have honored themselves and their husbands by so doing.—*Anon.*

LEGISLATIVE AGRICULTURAL MEETINGS.

We are glad to see this reorganization. It has ever appeared to us that great good might be derived from these meetings if properly conducted. The great difficulty lies in two things. One, that there are always some of those long-winded, everlasting talkers, who occupy a long time in beginning, more in talking, and who, after they have wound off six times, you find just spreading themselves for a speech. The other difficulty is found in the fact, that no one feels that responsibility rests on him, and of course no one prepares himself with facts gathered, condensed and arranged for the occasion. Each one appears to go without definite object, and expects the one who speaks before him, to furnish topics and suggestions for him to corroborate or refute, according as the real or fanciful relation of something he has seen or heard, may, at the moment, dictate. If a portion of the speakers were pledged at the previous meeting, those speakers restricted to 15 minutes, and all others to 10, it would give a life, definiteness and practical value, not often found in the discussion as now conducted. There would be hope, also, that some of the same spirit might be carried into the proceedings of the Legislature, in the sessions during the day. Every auctioneer knows if he would sell high he must sell fast. Bidders soon find it is now or never, competition becomes brisk and good prices are realized. So with discussions. Let a speaker be stopped a few times in the middle of a long yarn, and he will soon accustom himself to commence with his subject, stick to it while he talks, and stop when he gets through; and by so doing give pleasure to all who hear him. There is almost always agricultural talent of the highest order, in attendance at the meetings, talent not connected with the Legislature, and nothing but definiteness of subjects, time and order, is requisite to bringing it out. But if, when raising and preserving apples is the subject, one man taken half an hour on the breed of cattle, because he is a cattle-breeder, and another on sheep because he has sheep to sell, and a third on underdraining, that being his hobby, another on the virtue of guana applied to corn, because he has killed the sweet corn in his garden with it, you will have a meeting too much like many that have been held.—*Culturist and Gazette, Pittsfield.*

AGRICULTURE IN SULLIVAN COUNTY, N. H.—At a recent meeting of the Executive Board of the State Agricultural Society, the Committee on Farms awarded the *first* premium of $40 to Ezra J. Glidden, Esq., of Unity, for the best cultivated farm in the State; and the *second* premium of $30 to Ebenezer Pike, of Cornish, for the second best. These awards establish the fact, as we understand it, that "Little Sullivan" stands two degrees ahead of any other county in the matter of first class farms. It is a distinction worth bragging over.—*N. H. Spectator, Newport.*



THE LODGE PEAR.

SMITH'S BORDENAVE OF SOME COLLECTIONS.

This portrait of the Lodge Pear is a good one. The fruit grew in the garden of Col. WILDER, of Dorchester, who not only furnished that in its season, but has kindly sent us the following history and description:

The Lodge pear was brought to notice about twenty years since by the late Col. CARR, of Philadelphia, and was supposed to be a seedling fruit of that vicinity. Within a few years it has been disseminated from Hartford, Conn., as Smith's Bordenave, having been received in an invoice of trees imported from France into that city, either without a name, or one which was subsequently lost. Whatever its origin may have been, it possesses excellent characteristics, and is worthy of extensive cultivation.

Size, rather above medium, three and a half inches long, including stem, by two and a half in diameter; *form*, acute, pyriform, broad across the middle, some specimens inclining to obovate, outline and surface a little irregular; *calyx*, small, sunk in moderately deep basin; *stem*, one inch long, rather stout and curved, sometimes swollen at the base and set without depression; *color*, dull green, overcast with a thin coat of russet; *flesh*, greenish white, very melting and juicy; *flavor*, rich, vinous, with a distinct high brown beurre aroma; *maturity*, first of October; *quality*, very good.

The tree is hardy, but not very vigorous, except when grafted on the leading shoots of old trees. It produces abundant crops, which adhere strongly to the branches during the autumnal gales, and the fruit keeps well for one of its season.

For the New England Farmer.

UPLAND CRANBERRY.

MESSRS. EDITORS:—I know that you are interested, and are glad to receive information in regard to any new fruit that may come into use from any section of our country. I have recently had my attention called to an upland cranberry, found on sterile hill-sides and barren, cold lands, near the upper lakes in Canada. Prof. F. Shepard, of New Haven, from whom I gained my information, and from whom I received a sample of the berries, says that he has seen them in great abundance on his exploring expeditions, and that they almost cover the ground in places where but very little vegetable matter can be found, and look beautiful, with their bright flaming red color.

The berries are smaller and more round than the low vine. When prepared for sauce it is not as acid, and has a peculiar rich flavor, and is very highly esteemed by those persons who are able to procure them. The vines are very much like our low cranberries, and yield more abundantly. If they can be introduced into the waste, cold unproductive parts of the United States, they must be very remunerative and valuable to the producer. It is my intention to obtain some of the plants in May of this year, and hope to be able to supply those who wish to try the experiment.

New Haven, Ct. F. TROWBRIDGE.

EXTRACTS AND REPLIES.

OLD PASTURES — BASKET WILLOW.

MR. EDITOR:—Is it best to plow old pastures that are run out, or let them remain, provided no manure is to be plowed in? (*a.*) I believe here the majority of farmers are against plowing, but my own judgment leans to the other side Perhaps Massachusetts men are better able to decide correctly than we, as their farms are much older.

Is there any other variety of the basket willow as profitable to cultivate for market as the *Purpurea*, or bitter purple willow? (*b.*) Perhaps your correspondent from Sherborn, as he is a manufacturer, can answer this question.

Greenboro', Vt. BENJAMIN COMINGS.

REMARKS.—(*a.*) It is doubtful, certainly, whether it is best to go to the expense of plowing old pastures, and re-seeding, without the application of manure. It would be a contest for the mastery between the weeds and grass, in which the former would be quite likely to succeed best. Would it not be better to take an acre, plow, manure and seed it, and as opportunity presents, continue it? In this way what is done, would be well done, and would afford a profit.

(*b.*) The Triandra, Forbyana and Purpurea, make a complete assortment for basket-makers, supplying all their wants, according to an article on the subject prepared by Mr. Charles Downing. He places the Purpurea last, but says it is valuable in all respects as an osier.

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HOW TO GET AN ASPARAGUS BED.

MR. EDITOR:—I want to set out an asparagus bed. Will you inform me, through your columns, which time is best, spring or autumn, and how deep it should be set, and how long after planting the seed it should be set out? After it is set out, how many years should it grow before it is fit to cut for use? J. H.

Marlboro', 1856.

REMARKS.—We cannot do better than to present the following, from the *Rural New-Yorker*, which we find at hand:

THE ASPARAGUS BED.—"How shall I get an asparagus bed?" asks one of our subscribers. We will try and give the information desired.

To begin with the beginning—the seed may be sown in autumn or early in the spring, in a good loamy soil. Select good and ripe berries, put them in water, and when slightly fermented, the seed can easily be washed from the pulp and dried. One ounce will grow a thousand plants. Sow in drills an inch deep, about one foot apart and cover with fine soil, pressed down lightly, Keep the weeds out, stir the soil often, and thin the plants to six inches apart in the drills. At one year old select the best and thriftiest plants to form your bed.

The asparagus bed should be open to the morning sun. And it is better if protected from the north and east, yet open to light and air. It should be very rich, and on this, more than anything else, depends the amount and value of the product. Dig up a loamy, porous soil two feet deep, intermixing largely and thoroughly with manure to within six inches of the top; this should be filled with garden loam. Then take the young plants from the seed bed—injuring the roots as little as possible—and carefully set out in rows two feet apart, one foot apart in the row. Then cover the bed two inches deep with dark colored soil, made by a mixture of charcoal dust and muck, and sprinkle salt until the surface is white again. This will keep down the weeds and promote the growth of the asparagus, which, it should be remembered, originated on the sea-shore.

In autumn remove the dead stalks and cover the bed three inches deep with stable manure, to be forked in the spring, with another dressing of salt. Let the stalks grow the first and second year without cutting, that the roots may get well established; the third year the asparagus will be fit to cut, and will, with similar treatment each fall and spring—with perhaps a slight addition of earth to prevent the roots from coming too near the surface—continue to yield well for many years.

Remember, room, a rich, warm soil, moist, but well drained, and salt enough to prevent the growth of weeds, are peculiarly beneficial to the asparagus plant. With these, and good care, one cannot fail to have that inmate of all good gardens, an asparagus bed.

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FINE YIELD OF POTATOES.

MR. EDITOR:—Noticing in your valuable paper a report of a large yield of potatoes, by friends Knowlton and Cross, I will give you my success in raising the same kind, (the Jenny Lind,) in the rocky town of Shelburne. The past season I have dug from eleven rows, eleven rods long, (about twenty-two rods of land,) *seventy-five bushels of potatoes.* Although I did not weigh any of them, yet I think I might have weighed some which would fully equal Ashfield "whoppers."

Shelburne, Jan. 7, 1856. REUBEN NIMS.

—

TIME TO CUT TIMBER—WILLOW FOR FENCES.

I wish to inquire the right time to cut timber and not have it powder post? Is the basket willow good for fencing? Has any one tried it, so as to know how it ought to be managed between pastures, or between pasture and meadow? What length of time, and what kind of willow is the best? What distance apart, and what kind of land is the best? How many years before it will make a permanent fence, or will they be always browsed so that they are not of any value. If you, or any one of your subscribers, will give light on these questions, you will do a favor to many of your subscribers. A. B.

Salisbury, Vt.

PLOWING AND MANURING ORCHARDS—CANADA THISTLES.

MR. EDITOR:—I wish to have your judgment as to the best manure for me to use upon an orchard which I propose to plow in the spring. There are some 2½ acres, of a clayey loam soil, gently undulating, with a slight northwestern inclination.

It was planted about 7 years since, and has had, I judge, about an equal share of cultivation and neglect since—the owner having gone west four years since.

It came into my possession last spring, and I find that the last summer, though the trees seem to thrive, and for the second appearance of fruit, did well, yet the weeds and grass had a strife for possession, in which the grass came out second best. The weeds most numerous and troublesome are the white daisy, and a large, coarse weed, with yellow blossoms, called by some, John's-wort.

Now the question is, as to using stable manure, ashes, lime, poudrette, super-phosphate, &c., &c., either singly or mixed, and if it is best to give a heavy dressing this year, or moderately for two or three years to come?

Is there any better way to cure Canada thistles than to salt them? D. F. M.

REMARKS.—Cover your orchard land well with stable manure, and plow it in, but plow with great care, or you will injure the roots. After plowing, apply ten bushels of ashes to the acre, and harrow it in, and your trees will "drop fatness," after the roots have got fairly hold of such dressing.

Cut the Canada thistle when in blossom, and when dry burn them where they grew. Apply brush and other rubbish, if you have it at hand. But plowing and cultivating is best.

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ACCIDENTS AND DISEASES OF CATTLE.

MR. EDITOR:—Ten years ago next April I had a cow burst so badly that she grew poor and weak; for seven or eight days I could get no one to relieve her, when she failed so rapidly as soon not to be able to rise alone. With the aid of a farrier I then cut through the skin a slit about eight inches long, and put back the small intestines, which were all down in the skin in front of her bag. We closed up the skin with a strong waxed thread, and she gradually recovered and brought a calf the next spring, and so on for seven years in succession, when I fattened her.

In reply to some inquiries about the horn ail, I would say that I cured several creatures, so far gone that they could not rise without help, by taking a bag that would hold a quart or more of equal parts of soft soap and fine salt, filling it and tying it on top of the head to each horn. Let it remain several days, and apply another if the cure is not effected. B. MARTIN.

East Corinth, Vt.

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HOW TO PREPARE WHEAT FOR SOWING.

Wash the wheat clean, drain off the water and add two quarts of coarse-fine salt to a bushel. Let it stand from 24 hours to a week, and stir it occasionally. When ready to sow, drain off the brine, spread the wheat on the barn-floor and sprinkle it with slaked lime until it is in condition to be scattered in sowing easily. I never knew smut or the weevil to attack wheat prepared in this manner.

Dublin, N. H., 1856. JOSEPHUS SNOW.

—

ABOUT MIXING MANURES.

MR. EDITOR:—As this is a good time to draw out manure, will you please tell me, through your paper, which is the best to put into my heap, plaster or muriate of lime? It may be, some of your readers have tried both, and can tell from experience.

Milford, Jan., 1856. L. A.

REMARKS.—We would not advise either. Haul out the manure, pile it up snugly, and cover it with old muck, if you have it. In the spring, after you have dressed your land with this manure, then, on a portion of it apply the muriate of lime, and on another portion apply the plaster. Keep an exact account of the transaction, and through the summer note the appearance of the crop, and in the autumn, the result.

You will find this course more satisfactory than by mixing all your fertilizers in a promiscuous heap.

—

WHAT IS THE EFFECT OF BONE MEAL?

MR. EDITOR:—Will you have the goodness through your valuable paper to tell me the properties and effect of bone meal upon cattle and fowls, and how often, and what quantities, should be given? A SUBSCRIBER.

Nashua, Jan., 1856.

REMARKS.—When "A Subscriber" remembers that in every one hundred pounds of the bones of his cows, there is *fifty-five and a half pounds* of phosphate of lime, and then remembers that those bones are principally drawn from his pastures and fields, he will become satisfied that long and constant cropping must exhaust that substance. The term, phosphor, is from two Greek words which mean "to shine," "to bring," that is, to bring light, because when exposed to the air it smokes, shines in the dark, takes fire by mere rubbing, and burns with a large bright flame. *Phosphorus*, in chemistry, is a combustible substance, of a yellow color, and resembling fine wax. It exists in all animals and plants, though in comparatively small quantities. *Phosphoric acid* is obtained by burning a piece of phosphorus under a glass, where the white fumes of acid will condense on the cool inside of the vessel in the form of a white powder, which speedily absorbs moisture from the air, and runs to a liquid. This liquid is called *phosphoric acid*, and is very sour and corrosive. It combines with potash, lime, &c., and then makes what we call a *phosphate*, that is, the *phosphate of lime*, &c., and the bones of animals contain a large proportion of this acid, chiefly in combination with lime and magnesia.

After long-continued cropping of fields and pastures, without returning much manure, this sub-

stance is exhausted, the cattle do not obtain a sufficient quantity of bone-making material, and consequently sicken, and sometimes die. Young children, fed principally upon arrow-root, and other edibles which are nearly pure starch, often suffer exceedingly for the want of the proper bone-making substances.

We think "A Subscriber" will now clearly see what are the "properties and effects of bone meal upon cattle." Give it as often, and in quantities as much, as the creature will eat in an unmixed state; or, it may occasionally be mixed with a little meal, or sprinkled upon wet hay. We are always happy to find the attention of the reader turned to such points—they are of importance to the farmer.

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HOT-BEDS—EARLY BEET AND CABBAGE—SWEET POTATO SLIPS.

MR. EDITOR:—I am one of the constant readers of the *N. E. Farmer*, and I want to make a few inquiries through its columns. I want to start some vegetables under glass, and my sashes will cover about forty square feet. How shall I build the frame? How deep must the manure be? (*a.*) What is the earliest beet and cabbage? (*b.*) Can I find sweet potatoes in the market at a suitable time for starting slips? how early must they be planted? (*c.*)

Hanson, Jan., 1856.

REMARKS.—(*a.*) The following description of a hot-bed, from "Bridgman's Gardener's Assistant," will be in point:

Some gardeners make their beds on the level ground, but it is always safest to make them in pits from eighteen inches to two feet deep; in order to do this, the pits should be dug in autumn, or a heap of dung may be deposited on the ground intended for the beds before the frost sets in, and good earth may be obtained from the pits without difficulty.

The frames should be made of good sound planks; the back plank may be two feet wide, and the end ones may be so sloped as to make fifteen-inch plank do for the front. A frame calculated for four sashes, of three feet in width by six in length, as above described, should be nearly thirteen feet long, and about six broad at the top.

The frame being set over the pit, and properly fastened, the fresh dung should be spread regularly in the pit to the depth of twenty to twenty-four inches; if the dung be in a good heating condition, cover it six or eight inches deep with mould, then lay on the sashes, and protect the beds from the inclemency of the weather. In two or three days the rank steam will pass off; it will then be necessary to stir the mould before the seed be sown, to prevent the growth of young weeds that may be germinating; then sow the seed either in shallow drills or broad-cast, as equally as possible, reserving a small quantity of the warm mould to be sown lightly over the seed.

(*b.*) The Bassano beet and early York cabbage are considered the earliest.

(*c.*) Sweet potato slips are usually sold by Messrs. Rand & Darling, Quincy Market, about the season for setting,—first of June.

GRAY LIME AND WHITE—CHARCOAL.

I wish to ask the following questions of you, or some of your able correspondents:

Is gray lime as good for farming purposes as the white? I mean as a manure.

What sort of soil is most benefited by charcoal? and is coal made from hemlock, or other soft wood, as good as that made from hard wood, as a fertilizer, and what is the best way to apply it? to keep it on, or near the top of the soil, or bury it in deep.

Jan., 1856. C. W.

—

A SMALL AND CHEAP SUMMER-HOUSE.

MR. EDITOR:—Will you give us a plan for a small and cheap summer-house, upon which vines may run, and in an unpretending garden; and dimensions of lumber for the same.

Yarmouth, Maine, 1856. O. A. HILL.

REMARKS.—Such a summer-house is a beautiful feature in a garden, and we hope some of our correspondents will tell us how it should be constructed.

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HOW TO TELL GOOD EGGS.

MR. BROWN:—In a good egg the small end is always cold, and the big end warm. They can be tested by touching the tongue to the small end, and then to the large end; any one can observe the difference. W. R. S.

Petersburgh, Jan. 14, 1856.

For the New England Farmer.

ON RAISING STOCK.

Having had considerable experience in the raising of stock, I wish to state through the columns of the *Farmer*, a few facts connected with it. There is a mistaken idea prevalent among many farmers, that if a creature is fed high while young, it will naturally be tender, and must so be fed through life to be kept in good condition. A thing that is worth doing at all, is worth well doing; if farmers would have fine, well proportioned cattle, they must be well cared for during their first years, and this is the main point; if a calf is kept growing all of the time the first year, the probability is that it will make a fine creature, if it have enough even of poor hay to eat. My method of raising calves is this; let them suck one-half the cow gives for four or five weeks, keeping fine hay before them, and giving them, once a day, a handful of meal or oats, or a few crusts of bread soaked in water, then learn them to drink porridge made of skim milk and buckwheat flour, or meal that has been sifted. In this way they seldom scour at all; and if one does, I take a little white pine charcoal, finely pulverized, and mixed with lard enough to make it adhere, spread this mixture on a piece of bread, and give it, which is a certain cure. I feed in this way until they are three months old, when they will do to wean. A few oats should be given once a day a while longer. During the first winter they should be kept in a warm stable, and have all the good hay they will eat; after this they will grow well and keep in good condition on meadow hay. In this way it is no uncommon thing for my three years old steers to weigh 3,000 lbs.

And what is true of calves, is true of colts in a

greater degree, as it is the symmetry of form, and gracefulness of movement in the horse, in which consists his highest value. If the colt is allowed to become stinted while young, all the high keeping that can be given in after life never can restore that which he has lost. I have known a man who wished to raise up a tough horse for his own use, who kept his colt in an open shed, with nothing but poor hay to eat, and it was tough indeed; tough to look at, tough to drive, and a sorry looking thing altogether. A colt should be kept in a warm stable, with plenty of good hay, a pint of oats and a pint of sliced carrots a day, during the first winter, and here I would say, that I consider grooming of as much importance as good keeping; farmers, as a general thing, pay too little attention to this; a good rubbing from head to foot, once a day, is worth as much to a horse as two quarts of oats. If farmers would keep three things in view, in regard to young animals, we should soon see a great improvement in the stock of New England, which are these—feed, feed well, feed high. A. F.

West Brookfield, 1856.

REMARKS.—Capital suggestions—and as true as they are capital. Hope to hear from A. F. again.

For the New England Farmer.

HORSE RACING AT CATTLE SHOWS.

MR. EDITOR:—Can you tell us how it happens that within a year or two, the time at our cattle shows, instead of being devoted to the legitimate objects of such gatherings, is devoted to horse-racing? And not not only that, but a large part of the money raised and set aside for prizes, given for the best specimens of female equestrianism? Is it possible, that, in this enlightened age, we are willing to sustain horse-racing, with all its attendant evils too numerous to mention? that which our good fathers and mothers have labored to warn us against, and to shun as the places where vice and immorality did abound. This practice has been discountenanced by the good and moral for ages; and now, that it presents itself in a new form, under the name of cattle shows, thousands, both old and young, are in attendance; the grey headed, who ought to be too wise to be seen there, and the young and thoughtless, who drink in the excitement of the hour, with all the evil they see and hear, as they would the most luscious sweets. Horse-racing has become the most important part of the performances, beside which, an able and well delivered address would be called poor and insipid, and not worth listening too.

It is said by way of excuse for all this, that it draws a crowd, and it pays, and this is all that can be said in favor of the thing. All very true. So it would draw a crowd and doubtless pay, to have a puppet show, Jim Crow dancers, a circus, or something of that sort, but do you think it would tend to promote the noble art of agriculture? For one, I think otherwise, and am determined to raise my voice against the increasing evil. More than once when I have witnessed the races, I have been led to remark that the ladies would do better to be at home, making bread or butter, or still better, be able to bring a specimen of those articles to the fair, that they might compete for the prizes offered, rather than to show themselves mounted on a fast horse to run a race that the crowd "that pays" may have an opportunity to gratify a strange curiosity that seems to exist in the breasts of the Yankees.

We might ask the managers of these societies that annually throw away their money on this racing business, this question—are you expending the money committed to your charge in a manner calculated to give permanent satisfaction? And of the members of these societies I would ask, are your officers spending your money as you wish to to have them? Are you willing to have *forty* or *fifty* dollars paid for the best specimen of "horse-womanship," when your wife or daughter receives but *three* or *four* dollars as the highest premium given for the best butter, cheese or bread? No, and I hope the officers of all the agricultural societies will consider well what they are doing before they conclude to give away half or a quarter, or in short, any of the money which is distributed in premiums, to those who can best run or race a horse. Pray remember those who have exerted themselves to raise fruit and vegetables, to make bread, cheese and butter, to bring specimens of their handiwork, that your halls may be filled. And if any person should prefer horse-racing to bread and butter, or fruit, then I say, let him have his fill and live on that as long as he can, for he does not deserve any of the bread or the butter. More at another time.

MIDDLESEX.

Newton Centre, Jan. 15th, 1856.

REMARKS.—There is a diversity of opinion in regard to trotting-courses on our Fair Grounds. We are willing to yield room for a pertinent discussion of the question.

For the New England Farmer.

ABOUT FARM ACCOUNTS.

The neighbors of Shoemaker A. expressed surprise on hearing that he had made a purchase of real estate. It was not so surprising an affair, after all. The observation of A. had learned him that lucky purchases were made in a dull market. He had the money, and thought it would be a safe investment, and having been brought up on a farm and having a taste for agriculture, the management of a piece of land would be to him a relaxation instead of a care. A.'s purchase consisted of a small farm of twenty acres, "be they more or less," without buildings, they having recently been destroyed; situated within half a mile of his shop and the Post-office. A.'s first step was to hire a surveyor to measure and draw a plan of his land, when he found he had nearly an acre more than he expected, which more than paid the expense.

The trees next became the object of particular attention; they were pruned and washed, and everything done for them that promised to promote their advancement. The labor was all hired, the manure for composting was all bought, the crops were all sold, and accurate accounts kept of the same. What time A. spent in managing and keeping accounts of the land, the agricultural paper, &c., were all charged to real estate.

At the end of three years, the hay crop had been doubled, and all the other crops greatly increased. A. became desirous of changing his residence, and consequently of selling his farm. The farm was advertised in the agricultural paper that

had the greatest circulation in the vicinity, and a purchaser soon appeared to inquire the price, which he informed A. was altogether too high.

Then the value of the accounts A. had kept for his own amusement become manifest. By them he then was able to show that the net income of the farm was ten per cent. on the amount asked. The farm was sold for a handsome advance on the whole cost, which A. thinks, he owes mostly to his accounts. A. thinks the fuller the farmer's accounts of his crops, cost of cultivation, and net income of his farm, the better advantage he has when he wants to sell; the better chance he has of getting a fair price for his farm; and that no farm work pays better than that of keeping as accurate accounts as possible of all farm affairs.

A.'s conclusion is certainly reasonable; is it not worthy of being endorsed and acted upon?

Brookfield, 1856. YEOMAN.

REMARKS.—Most certainly. The above is a very happy illustration of the value of farm accounts.

CRANBERRY CULTURE.

[FROM THE MIDDLESEX TRANSACTIONS.]

GENTLEMEN:—I see in your advertisement of premiums to be distributed, one for Cranberries, which I hope to obtain; and I refer you for a description of the manner in which I proceeded to raise them, to the Agriculture of Massachusetts, as shown in returns of the Agricultural Societies of 1853, pp. 245, as follows:

"MR. FLINT'S STATEMENT.—In the autumn of 1843, I built a dam and flowed the swamp from that time till August, 1846; then let off the water. The following October, burnt over the swamp, and set the vines. The vines were cut up with a sharp hoe or shovel, and set in hills, three and a half feet apart; the bunches about the size of a quart measure.

In raising from the seed, I planted in October, 1846, about half an acre; crushing each berry between the thumb and finger, and placing it just under the mud; single berries in a hill, three and a half feet apart. Also, sowed broadcast a number of bushels the following spring. Very few vines appeared from them for two or three years; no berries till 1852, then very small; in 1853, good size, in quantity, worth picking.

My practice has been to stop the water in October, and keep it on till May, or until the weather is warm enough to start vegetation—then lower it down to the top of the vines, and keep it on them until I think the spring frosts are over, then let the vines be fairly out of the water until the berries are grown—say from 10th to 15th August—then draw it off for ripening and picking.

We found three or four small beds of native vines on the swamp, after we let off the water to set the vines, and a few very fine berries; there is now probably a dozen beds that bear berries.

In 1850, we picked seventeen bushels of berries on the swamp; in 1851, twenty-eight bushels; in 1852, ninety-three bushels; in 1853, we estimated them at one hundred and fifty bushels.

In 1852, the native vines produced by estimation, before selling, forty bushels; the transplanted vines, sixty bushels; the increase this year is, principally, from the transplanted vines.

I now give you a statement of the proceeds:

1850,	picked 17 bushels,		sold 15½	bushels for			$26,20
1851,	"	28	"	"	26	" "	70,00
1852,	"	93	"	"	93	" "	300,00
1853,	"	52	bbls.,	"	52	bbls., "	380,00
1854,	"	47	"	"	47	" "	305,00
1855,	"	50 by estimation, probable value					500,00
							$1581,00

I learn from the first annual report of the Secretary of the Board of Agriculture, that the cost of preparing land and setting vines is $1,50 to $1,87½ per rod, which is very extravagant, compared with the manner I have pursued:

The cost of building my dam, by contract,	$20,00	
Ox labor, furnished by myself, estimated,	5,00	
Setting vines on about an acre,	25,00	
		$50,00
The cost of stopping and letting off water, and taking care of the same since 1846, yearly, $10,00,	$90,00	
Reckoning the cranberries for the past six years at six hundred bushels, and the cost of picking and marketing the same at 75 cents per bushel,	450,00	
		$540,00
Net profit on $50 expended in nine years,		$1041,20
Yearly income on $50,		115,67

Respectfully yours, ADDISON FLINT.

North Reading, Sept. 25, 1855.

I hereby certify that the above statement, in regard to the management, the quantity sold, and the amount received, are correct. ISAAC FLINT.

North Reading, Sept. 25, 1855.

REMARKS.—Since the above statement was made, we have learned from Mr. Flint, that he had just fifty barrels of cranberries as his crop of 1855, which he sold for *thirteen dollars* a barrel, delivered at the depot two miles from the house, making the pretty sum of *six hundred and fifty dollars*, as the product of two acres of what was quite recently an almost worthless bog meadow. Mr. Flint also states that in looking about he notices a good many tracts of land apparently as good for the cranberry crop as his, and that some of the pieces might much more readily be flowed and reclaimed than his own.

For the New England Farmer.

ENGLISH LAPSTONE POTATOES.

MESSRS. EDITORS:—Last spring I was induced to purchase a quantity of the above variety of potatoes,—in part by the excellent character given them, and in part by the belief that they were the "old fashioned" Kidney variety, (long since numbered among the "good things of the earth which were,") which had come home in its purity.

My experience justifies its character for early maturity as well as excellence in quality, and was entirely free from disease, as was not the case with all the other varieties cultivated by myself and neighbors. I am now using them as a baking potato, to which mode of cooking their formation is more admirably adapted, presenting great surface and little depth in proportion to size, and in that mode of cooking, think them fully equal to the Lady Finger and Carter.

As a produce, they are far beyond my expectations, from the appearance of the seed, but whether the past season had the effect of inducing irregularity of size, or whether it is peculiar to the vari-

ety, is a problem that farther time must determine, so far as I am concerned. In harvesting, I personally inspected the produce of ten hills, each seeded with a single potato, and the average yield was thirty-four and a fraction, ranging in size from that of a robin's egg to a circumference of 7 to 9 inches, about one-half medium to full size quoted, and remaining half from medium down to the size first mentioned. Of seven varieties which I raise, equally great difference in size prevailed, with the exception of White Chenangoes; they were few in the hill in comparison with all the others, but in size uniformly large, although much affected by the disease. I am of opinion that the variety is worthy of cultivation with a view to general use, not only on account of its early variety, but for its excellent baking qualities. Will not others who produce the the seeds for trial give their experience through your valuable journal? MIDDLESEX.

Jan. 3d, 1856.

THE OLD HOMESTEAD.

Whene'er the happiest time is come
That to the year belongs,
Of uplands bright with harvest gold,
And meadows full of songs—
When fields of yet unripened corn,
And daily garnering stores,
Remind the thrifty husbandman
Of ampler thrashing floors—
How pleasant from the din and dust
Of the thoroughfare aloof,
Seems the old-fashioned homestead,
With steep and mossy roof!

When home the woodman plods, with axe
Upon his shoulder swung,
And in the knotted apple tree
Are scythe and sickle hung—
When light the swallows twitter
'Neath the rafters of the shed,
And the table on the ivied porch
With decent care is spread—
The heart is light and freer
Than beats in populous town,
In the old fashioned homestead,
With gables sharp and brown.

When the flowers of summer perish
In the cold and bitter rain,
And the little birds with weary wings
Have gone across the main—
When curls the blue smoke upwards
Up towards the bluer sky,
And cold along the naked hills,
And white the snow-drifts lie—
In tales of love and glory,
Is forgot the cloud and storm,
In the old fashioned homestead,
With hearthstone large and warm.

WHITEWASH FOR OUT-HOUSES AND FENCES.—Take a clean barrel that will hold water. Put into it half a bushel of quicklime, and slack it by pouring over it boiling water, sufficient to cover it four or five inches deep, and stirring it until slaked. When quite slaked, add two pounds of sulphate of zinc, which may be had at any of the druggists, and one of common salt, which in a few days will cause whitewash to harden on the wood work. Add sufficient water to bring it to the consistency of thick whitewash.

To make the above wash of a pleasant cream color, add 3 lbs. yellow ochre.

For fawn color, add 4 lbs. umber, 1 lb. Indian Red, and 1 lb. lampblack.

For grey or stone color, add 4 lbs. raw umber and 2 lbs. lampblack.

The color may be put on with a common whitewash brush, and will be found much more durable than common whitewash.—*Scientific American.*

For the New England Farmer.

WATERING CATTLE.

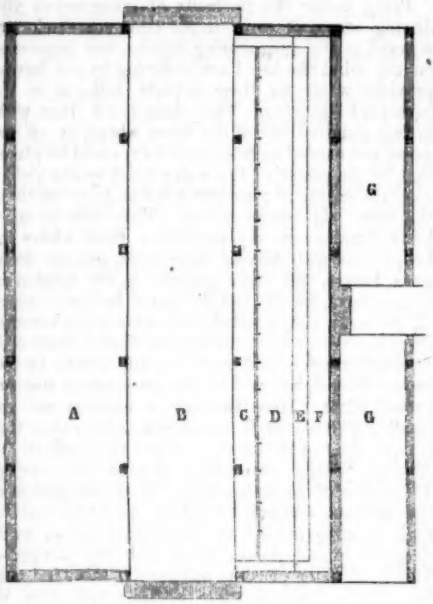
Being under the necessity of going out in this driving storm of snow to see that my stock are watered at the neighboring brooks, has impressed on my mind the loss I am suffering by not having provided water for them in their stalls, or in the barn-yard adjoining. This same brook runs within two hundred feet of the barn, where, at an expense not exceeding $50, machinery could be placed that by the power of the water itself, would yield a constant supply of pure water for as many cattle as the barn will accommodate. That this is so, I know, because on my neighbor's farm, where he keeps constantly fifty or more cows, and as many oxen, horses, and other animals, as are needed on a large farm, for the last *five years*, he has obtained all the water they needed, both winter and summer from a small pond in his pasture distant 2500 feet, forced through a lead pipe, by a fall of only 13 feet head—the original cost of the preparation did not exceed $200. Here then, at an expense not exceeding $20 a year, is obtained a convenience that is equivalent to the services of one man, and an additional benefit, more than double this saving. Think also of the saving made, in the droppings of the animals, one-half of which would be lost by their roaming abroad, and irretrievably lost, when dropped in and floated away with the stream.—This is no fancy picture; instances of this kind may be seen in every farming village; aye, more, we have known farmers who have boasted of their convenience of watering their cattle at the brooks, or neighboring ponds, as their fathers for *a hundred years* had done before them. It is perfectly easy to demonstrate, that the loss sustained in fertilizers, by this careless usage, in this period, at a moderate valuation, would exceed the present value of the farm, at a high valuation. So much for heedlessly going on in the steps of those who have been before us, without regard to consequences.

January 1st, 1856.

REMARKS.—The above communication is an exceedingly valuable one. It is the notice of such practical, every day wants of the farmer, that gives an agricultural paper much of its value. Water arrangements are generally expensive, we are aware but that should not deter one from making a beginning. We know a good farmer—one of the best—who pumped water forty years, for forty head of cattle per day. Now this would require at least a minute for each animal, twice a day, making eighty minutes, and of very hard work, too. At length after wearing out some dozen pumps, and pretty nearly wearing out himself, he dug a well in the side of a hill twenty-one hundred feet from his barn, put in a half-inch gutta percha pipe, and for several

years past has had the felicity of seeing the water run down hill by its own gravity, and filling his ample troughs to overflowing, where the cattle may slake their thirst at will. It also serves for many other purposes, and all accomplished at a cost of one hundred and fifty dollars.

GROUND PLAN OF A CONVENIENT BARN.



This barn is 38 by 65, on the ground; 20 feet posts, with small ventilator on the roof; two windows in each gable end, of 12 lights each; 4 windows in the stable, of 6 lights each; a long window over the great doors two lights high; all 9 by 12 glass.

The driveway in the centre, 12 feet wide; the entrance door to stable in the centre; entrance to manure shed at each end.

A, bay for hay. *B*, driveway, or barn floor. *C*, is a crib, or stancheon, placed 2 feet 4 inches from the line of driveway. *D*, platform for cows, 4 feet 2 inches, with 2 inches pitch. *E*, trench behind cows, 22 inches wide, and 5 inches deep. *F*, walk back of cows, 3 feet 8 inches wide, with scuttles at suitable distances, with wrought hinges. *G*, manure shed, 7 feet deep, built of wood, 10 feet wide, with a 5 foot entrance in the centre to the stable.

The floor over the driveway should be framed so as to be movable, either 7 feet, 10½, or 14 feet in height, for convenience in storing coarse fodder.

The tie stancheon should lean from the animal at the top, 5 inches in 6 feet in height, and the space between the stancheons at the bottom should be an inch and a half wider than at the top—say 6½ at top and 8 inches at bottom.

A division wall runs under the crib the whole length of the barn, to divide the manure cellar from the main one under bay and driveway.

The object of a manure shed, in addition to the cellar under the cow stable, is to leave the cellar room free in which to deposit muck and loam, keep it from freezing, and have it convenient to mix with the droppings in the manure shed; also, to keep the evaporations of the manure from ascending to the barn to injure the hay and be breathed by the cattle. Two or three scuttles should be made in the crib throught which to drop muck.

Two ventilating pipes should be placed on the outside of the main building, 18 by 12 inches, commencing on the roof of the manure shed, and extending nearly to the eaves of the barn, with cap on top, and opening at three sides.

If the cellar is made tight there should be small windows in opposite sides of the cellar, made to open at pleasure.

MASSACHUSETTS AGRICULTURAL CLUB.

It is well known that we have in this State the old Massachusetts Society for the Promotion of Agriculture, a State Board of Agriculture, and one or more agricultural associations in each county in the State, and a Legislative Agricultural Society, holding its meetings one evening in each week, during the session of the Legislature. It may not be so well known, however, that there is but one in all these associations, open to the public, where any may go in and take a part in the discussions—and these discussions are held in the evening.

The State Board of Agriculture has ample rooms at the State House, where meetings might be held during some convenient hours of the day, and where the people, not only of our own State, but of all the surrounding States, could meet and engage in conversation, discussions, or for the arrangement of any business, having relation to agricultural progress.

We suggest, therefore, the propriety of forming a *Massachusetts Agricultural Club*, and that the State Board of Agriculture be requested to allow it the use of one of its rooms at the State House, where a meeting may be holden, at 12 o'clock, noon, on one day of each week. The Club, of course, to be regularly organized. Such an arrangement would accommodate hundreds who find it entirely inconvenient to attend the *evening* meetings at the State House, and it would afford opportunity for the farmers, gardeners, drovers, and all others to go in and pass an hour or more without much interruption to their business, and without being away from home over night. Who will take up the matter and help it along?

For the New England Farmer.

HOW TO RAISE FOREIGN GRAPES UNDER GLASS.

MR. EDITOR:—My information on the subject of raising foreign grapes under glass, has been derived from observation, the reading of some publications on grape culture, and the experience I have gained by experimenting upon their suggestions. In the first place I will give you the plan of my vinery, and the preparation of the border. The vinery is 34 feet long by 16 wide; the sills are placed upon seven brick piers on a side, rising three feet above the ground, with a span roof, running north and south. The sides are boarded with matched boards up to the sills, and the ends the same on each side of the doors. The rafters are 12 feet long. The sashes two lengths, three of the top ones on the west side slide over the bottom. The ends are also of glass, above the ceiling, three feet from the ground. There are two ventilators about six feet long and eight inches wide, on each side under the sills, which open and shut, and a door at the centre of the north and south ends, all of which can be opened to admit air when necessary.

I have a hydrant at one end of the building, under which I keep a barrel of water standing, and a hose, by which I can water the border and sprinkle the vines in a short time. The border is the length of the building, and 19 feet wide on each side of the walk, which extends through the centre of the house; being 7 feet inside and 12 outside of the building. The soil was removed two and a half feet in depth. The bottom was filled about six inches with oyster shells and small round stones, to prevent the roots from soaking on a wet bottom. The turfs taken from the top of the ground were laid on the shells and stones, then a laying of compost, and then a laying of bones from the slaughter house, mostly cattles' heads, and filled up with a mixture of loam, muck, leached ashes, scraps of old leather, lime, rubbish, bones and manure, raising it about six inches above the ground. As it was placed on a gravelly foundation, I have thought a drain to take off the water unneceesary. Downing says of grape culture, respecting the soil, that "it should be *dry* and *light*, *deep* and *rich*." Dead carcasses, which are reccommended by some writers, I think entirely unnecessary. The cost of the building and border was about four hundred dollars.

The beginning of April, 1853, I planted 24 grape vines, 12 on each side, which I had of Parsons & Co., of Flushing, L. I. There were 11 varieties, but mostly black Hamburgh. The roots were well spread out, just outside of the building, and covered with about three inches of soil, and the vines brought in under the ceiling to the inside, and tied to the wires about ten inches from the glass, after the buds began to push. It being important to keep the house and border moist the first part of the season, the inside was watered three or four times a week, and the vines sprinkled almost every day, and the outside was watered near the roots with soap-suds once a week. The most of the vines reached the top of the vinery by the middle of August. The house was opened as the heat began to increase, and shut before sunset. The thermometer, when the weather would allow, was kept between 70° and 80°, and not over 90°, unless the temperature without was higher. After the first of September, I watered but seldom. The first of December I cut back the cane to within four feet of the ground, and laid them down inside and covered with tan bark. The 2d year, 1854, I uncovered the vines the tenth of April, and opened the house as the season would allow, and after the buds began to push, tied them to the wires. About the first of June they began to show fruit. I pinched off the most of them, and did not allow over three bunches to grow on a vine the first year of bearing, and not more than one cluster on a spur. Watering the border was continued three or four times a week in the morning, but sprinkling the vines was discontinued while the fruit was in blossom. When the fruit was formed, I pinched off the end of the spur an inch beyond the first leaf above the bunch, and kept all the laterals back to within about 12 inches of the cane. When the fruit became the size of a pea, I commenced thinning them out with a pair of sharp pointed scissors, taking the small ones first. This was done twice in the course of two or three weeks, taking about one-half of the number. The first of July and the first of August, I sprinkled two pounds of sulphur each time on the ground in the middle of the day to prevent mildew. When the vines reached the top of the vinery, they were pinched off, but two or three laterals were left to grow a few weeks longer to prevent the buds from bursting. There were about fifty bunches, weighing from ten ounces to one pound. One vine, the syrian, had three bunches weighing from two and a half to three pounds, and some few of the black Hamburghs, over one pound. In seventeen months from the time of planting, some of the bunches were ripe. In the fall I covered the outside border with manure about ten inches thick, to prevent the roots from freezing, and to enrich the border for the next year. The first of December, I cut them off to within eight feet of the ground, washed them with a coat of soft soap and sulphur, laid them down as last year and covered with tan bark.

The third year, 1855. As the season advanced, I opened the house on hot days, and as the season was late, did not uncover the vines until the 18th of April. I washed them with soap-suds, and when the buds began to push, tied them to the wires. The whole border was forked up after removing the manure from the outside, and the inside watered thoroughly from the hydrant and hose, so as to penetrate the depth of the border. It had not been watered for the previous six months. A similar course in the cultivation was pursued as the previous year in regard to watering, airing, thinning out, cutting back the spurs, and stopping when they reached the top of the house, leaving two or three laterals to grow a few weeks longer. Sulphur was scattered over the ground twice as the previous year. I allowed from seven to ten bunches to grow on a vine, but only one on a spur, and had about two hundred bunches of good and well-ripened fruit. I commenced picking the 15th of September, and have had them till the present time, 20th of Nov. The black Hamburgh, Royal Muscadine and White Sweet Water have been heavier than last year, some of them weighing from 14 to 20 ounces. The Syrian, on which were seven bunches, weighed from 1½ to 2 pounds each. The danger of overtasking the vines compelled me, though with reluctance, to pluck off more than one-half of the clusters after they had

formed and appeared as likely to ripen as well as the others. The result was, the remaining bunches ripened perfectly, and the vines appear in good condition for another year.

I have thus given you my method of raising foreign grapes, and I should like to have others make the trial for themselves, and prove more successful than I have been. It has taken my personal attention an hour or two almost every day, and in thinning them out it took two or three whole days. The rich fruit obtained the premium of the Horticultural and Agricultural Societies, yet of *itself* has amply compensated me for the trouble and expense. Any one who has a taste for the work, and can spend the time, will find it a pleasant, if not a profitable pursuit, but if he depends on others, unless he has a skilful gardener, will probably meet with but little success. ORRIN SAGE.

Ware, Nov. 20th, 1855.

LOOK TO YOUR BEES.

The want of proper *ventilation* is scarcely less destructive to bees than the moth. If the hive is moderately close, the continued extreme cold which we have had has probably congealed their breath and the vapors of their bodies into sheets of ice, which now line the inside of the hive. The bees pass into the upper part of the hive, and huddle together over comb well filled with honey, from whence they move away occasionally to feed. Thus they are incased in ice which gradually thaws as the weather moderates and drips upon them or keeps the hive and comb moist so long as to induce mustiness and mould. An examination should be made and this state of things remedied as far as possible. *Ventilation* is as important—perhaps more so—in winter as in summer, and for the want of it, we have no doubt many swarms annually perish, when the loss is charged to extreme cold.

On examining several swarms the last week in January, we found those in loosely-constructed hives, having cracks about them an eighth of an inch wide, in better condition than those in hives where the corners fitted closely. If the wind does not reach them, nor moisture, they will probably care little for any degree of cold we experience, if they, at the same time, have plenty of honey. At no time this winter have we opened a hive but we found the bees in lively motion and ready to take wing, although standing in an open bee-house. But an occasional examination is necessary to ensure a successful wintering.

CONCORD FARMERS' CLUB.—This club held a public meeting on Thursday evening, Feb. 7. The travelling was bad, and the clouds threatening, so that the attendance was not numerous. Enough were present, however, to go into an animated discussion on the subjects designated—*Root Crops* and *Ornamental Gardening*. Among the visitors were WM. BUCKMINSTER, Esq., senior Editor of the *Plough-man*, his son, Associate Editor, and Mr. ABNER HAVEN, of Framingham. They all participated in the discussion, and gave a new interest to the meeting. Full notes of the debate were taken by Mr. PRATT, the Secretary, which we may obtain, perhaps, for publication at a future time.

For the New England Farmer.

MATTERS IN IOWA.

MR. EDITOR:—The weather has been extremely cold in Iowa, for nearly a month past. Frozen potatoes are "thick as blackberries;" though we have but very few frozen *apples*—for the obvious reason that we have none to freeze. It is no uncommon thing, however, to see frozen hogs, and other creatures, in consequence of the piercing winds and imperfect shelter. I have really pitied the poor cows and hogs, as I have seen them wandering about, bellowing and grunting for a comfortable place to lie down in. But the farmers here seem to think that the south side of a hay-stack is warm enough for any dumb beast; and the poor creatures themselves, if they could speak, might perhaps wonder, as the little boy did, how their neighbors get along, that don't have any hay-stack to stand under. A good warm barn, is really considered, by some, as a mere Yankee notion, not to be imitated in Iowa; at least, as a luxury not to be indulged in. (A large part of the people in this vicinity are from Ohio and Pennsylvania.)

The hogs, both living and dressed, look very differently from your housed and stuffed porkers in Massachusetts. I have hardly seen a *fat* hog in Iowa; seldom one that weighed over 200 pounds. They run at large most of the year, and often fair poorly. A little stuffing, just before killing, does not make much of them. The mode of killing, too, differs as much from yours, as the mode of raising. There is no *squealing* about it. That interesting noise I have hardly heard in the West. They are *shot* down, and dead in an instant. Beeves also are treated in the same way, instead of being *knocked* down. *The gun* is a great institution, out West.

The comparative expenses of living, here, and at the East, differ somewhat from the common notion at the East. In the first place, land has gone up so rapidly, within the last two or three years, that a good farm out here costs about as much as a good one in Massachusetts, I mean one that has been improved, and furnished with comfortable fences and buildings. Fuel is as high as in most parts of Massachusetts; good wood being from $4 to $5 per cord. All kinds of dry goods and groceries are from 20 to 50 per cent. higher than in Massachusetts. Furniture, hardware, etc. is from 50 to 100 per cent. higher. Horses and cattle about the same as at the East. The principal things that are lower are pork and grain. I speak of the more thickly settled parts of the West. In places remote from all the privileges of society, it may be slightly different.

Nevertheless, the tide of immigration is unabated. The railroad, lately completed to Iowa City, 60 miles from the Mississippi, is thronged daily, as much as your Eastern roads. Where all the folks come from, is "a wonder unto many"—much more so than where they are all going to. The latter is

no mystery at all, to those who have seen the vast, unbroken prairies, on every side. Please send us *some* of your best farmers; and *many* of your most sterling men and women. Yours, &c., M. K. C.

Tipton, Iowa, 1856.

For the New England Farmer.

THE GOLDEN RULE.

AIR:—"*Green grow the rushes, O!*"

BY THE "PEASANT BARD."

The Golden Rule 's the rule of rules,
But few there be who follow it;
Have you it not?—have you forgot?
Go buy, beg or borrow it.

See'st thou within thy brother's eye
The mote, when thine is full of stuff
Enough to take, and easy make
Your *Haman* long and strong enough!—
The Golden Rule, &c.

Why take advantage of the weak
And simple-minded Josey, O?
Why him deceive, and make believe
A cat-tail is a posey, O?—
The Golden Rule, &c.

Why hold the noses of the poor
Hard down upon the grinding-stone?
Full many flaws have Fortune's laws,
And you may yet be finding one.
The Golden Rule, &c.

O, dweller in the house of glass!
Why will you aye be throwing stone?
If one you crack should cast it back,
I tell you what it is—you're done.
The Golden Rule, &c.

We know the human craft is weak,
The sport of Scottie's bellows, Sir;
But let us see if we can't be
Confounded clever fellows, Sir!
The Golden Rule's the rule of rules,
But few there be who follow it;
Have you forgot?—have you it not?
Go buy, beg, or borrow it.

For the New England Farmer.

FLANNEL NEXT TO THE SKIN.

MR. EDITOR:—I like your occasional instructions as to domestic duties—and was particularly pleased with your remarks on the use of flannel next to the skin—and the mode of washing to prevent its fulling. This accords with my own experience in years gone by. But, for two years last past, I have worn a vest made of raw silk next to the skin, with decided comfort and convenience—and like it better than any flannel I ever used, and find it quite as good economy. Two such vests, that cost in the first instance five dollars, I have now worn two years, having them washed about once a fortnight, and they are good vests yet. During this period, I have taken no cold, nor had any sickness that confined me to my house. To be sure, I take care to have a thorough ablution with cold water every morning, and a dry wiping afterwards. If any one can find a better prescription for the preservation of health, I should like to know how it reads.

I do not boast of knowledge in these matters, I only give my own EXPERIENCE.

Feb. 4, 1856.

FIFTH LEGISLATIVE AGRICULTURAL MEETING.

REPORTED FOR THE FARMER BY H. E. ROCKWELL.

The *fifth* regular meeting of the Legislative Agricultural Society was held on Tuesday evening in the Hall of the House of Representatives.

The subject for discussion was the same as that at the last meeting, "*Manures, and their Application.*"

The meeting was called to order by Dr. FISHER, of Fitchburg, Chairman of the Executive Committee, who invited Mr. E. T. PARSONS, of Ludlow, to act as chairman of the meeting. He said that he regarded the subject which was to be discussed this evening, as at the foundation of all successful farming. He had had little experience in the use of guano or the other concentrated manures. He had been obliged to manufacture his own manures by taking peat, muck, mud, and the earth from under old fences, removed for the purpose, and putting it into compost heaps. He then urged gentlemen present to take up the subject, and to express their views in their own way.

Mr. COOLEY, of Conway, said his practice had been to raise everything he could on his farm, and to feed out upon it everything he raised. He cut brakes and swamp grass, and worked it into manure by using it as litter. He thought it better to apply manure, especially on wet land, before it is fermented; he did not therefore work over his manure much, or allow it to ferment much before applying it.

Dr. REYNOLDS, of Concord, was next called on, who commenced his remarks by speaking of the very great importance of the subject of manures. We need to study vegetable physiology, and apply food or stimulus to their support and growth, as we study human physiology and apply either food or stimulus as we need. It is important, therefore, to know what is food, and what is stimulus merely, and to know how to apply them in due proportion. It is important to understand the difference between a stimulus and a nutriment to plants. We may have a thrifty plant with little seed or grain; and, on the other hand, we may have much grain with small stalks. We need both, and must therefore furnish the material which will produce them.

In most New England soils, *humus* and lime are needed. Our soils are exhausted, by carrying off the humus in crops, without returning to them enough to compensate for it; and it is therefore necessary to supply it artificially. The lime is carried off in the bones and milk of the cows, in large quantities, and both these—the *humus* and the *lime*—should be restored to the land in such a form that they can be taken up by the plants easily. The question arises as to the form in which they shall be applied. This is for experience to determine; and farmers should all make a record of their ex-

periments in regard to the matter until the question is satisfactorily settled. The Germans do not clear their stables during the season; but give their cattle litter. But we cannot use rye straw which costs $16 per ton, as a litter, because it is too expensive. But rye straw, cut up and wet with hot water, and sprinkled with meal or shorts, is of more value as food than it has generally been considered.

The importance of using peat muck was then spoken of, which may be used to advantage, even if it is of acid quality, by mixing lime or an alkali with it.

Mr. C. L. FLINT, Secretary of the Board of Agriculture, spoke of the importance of understanding the nature of manures so that they may be applied as stimulants, as fertilizers, or as ameliorators. Well rotted manure is an example of a good fertilizer, where immediate results are desired. As a stimulant, lime may be used to call into action certain elements which are dormant in the soil. Coarse barn-yard manures are good as ameliorators where the soil is of a stiff, clayey nature, the effect being to make the soil more light and pliable. Most forms in which guano is applied produce a great deal of ammonia, which stimulates the plants more perhaps, than any other substance. But some plants need phosphates; and there are forms in which the phosphates can be more cheaply procured than that of guano; as from bones. A burned bone is a neutral phosphate of lime, and by applying sulphuric acid to bone dust it becomes soluble, and is easily taken up by plants.

He thought experiments should be made by farmers, to ascertain the money value of each constituent of a compound manure, so that they may know what is the best and cheapest manure for any specific purpose. He would be glad to learn the results of experiments in the use of soda ash.

Mr. J. W. PROCTOR, of Danvers, thought the great practical question for farmers to consider was, whether they can find any material to be used as a manure, that can be as easily, or more easily obtained, and which will do as well as that from the barn-yard and hog-pen. They had been encouraged by chemists to hope for such a substance. He had seen guano applied on grass land with good success. In one instance, where it was applied at the rate of 400 pounds to the acre, it produced more than three tons of hay to the acre, while from the same field where none was applied, less than one ton to the acre was cut.

In another case where it was applied at the rate of 500 pounds to the acre, the grass was not worth cutting, though the land was pretty good. He had not seen the continued application of it. In his own neighborhood they were in the habit of gathering sea weed, kelp, and what they call muscle-bed, which is the mud of the harbor in which are muscles and muscle-shells. From Beverly Harbor more than a thousand cords are taken every year, and applied to the adjoining fields. It is applied continuously upon land cultivated with onions, with great success. He would not, however, rely upon that alone. The sea-weed mixed with other manures, helps to raise some of their best crops. He fully agreed in the necessity for discriminating between the different kinds of muck and meadow mud. It is used on the town farm in Danvers, where they make three hundred cords of manure, and where they raised a crop of rye last year which sold—grain and straw—so as to net $45 to the acre, the crop being 30 bushels to the acre.

Hon. DAVID CHOATE, of Essex, inquired of Dr. Reynolds how he could determine when the peat mud was of the acid kind, and therefore needed lime?

Dr. REYNOLDS said, that if a small quantity of muck were mixed with water, and the water allowed to stand, it would have a perceptible acid taste; and generally this was a sufficiently accurate test. Some muck contains sulphuret of iron; and then there is danger in using too much of it.

Mr. CHOATE said he had heard river sand—salt sand—spoken of as being very valuable in combination. One gentleman took ten loads of road-scraping, with five of river-sand, and mixed them together. He then took two bushels from the privy and two from the hen-roost, and put them in a hogshead, and poured in a quantity of water. He drew off the water and poured upon the heap of sand and road-scrapings, and then filled the hogshead again. This processs was repeated till the virtue of the contents of the hogshead was exhausted. On applying this to half an acre, wanting nine rods, and cultivating it with cabbages, he obtained as a crop, cabbages which sold in Cape Ann market for $82.

Mr. CHOATE then referred to a book which he held in his hand, written in 1747, by *Jared Elliot*, in which the author recommends meadow mud as a manure, speaking of it in almost the same terms in which it is now commended.

SIMON BROWN, Editor of *N. E. Farmer*, was called on, who stated, as he did at the last meeting, that he had great confidence in meadow muck; and since the last meeting his confidence had been confirmed by what he had read corroborating his own views, and the opinions of others, uttered here. He then repeated the reasons why he considered it valuable, which he gave at the last meeting; which are,

1. Because it exists in abundance, all over New England, in every neighborhood.

2. Because it is accessible to all—as those not owning meadows may purchase at low rates.

3. Because it contains nearly all the elements of fertility which the plant requires.

4. Because, next to charcoal, it is the best ab-

sorbent, that is, the best preserver of other fertilizers, that we can command.

These points were elucidated.

He thought more should be said as to the *application of manures*, which was a point that had not been sufficiently investigated. *Bulk*, in some instances, is required. He made an experiment by spreading coarse, fresh manure on a piece of land—a dry, sandy knoll. Though manured before, plants did not flourish there. After applying this coarse manure, containing straw, corn-stalks, and coarse grass, in a very wet heavy state, it was plowed in immediately, *in the autumn*, to the depth of six or eight inches. The land was very porous and light in the spring, and the field was cultivated with parsnips which grew to a very great size, so great, said Mr. Brown, that I think I never saw the bottom of one of them. They would break off at the bottom, they were so long. The doctrine of applying fresh manure is unpopular; but the contrary one is a popular error in many cases. He could show from the best authorities, that much is lost by fermenting manures which are to be applied to heavy lands. If we wish to *force a crop*, the manures must be well rotted and fine, but if we wish to have the manures last two or three years they should be applied at once, in their coarse, unfermented state, and under cover, where they will give off their gases to the surrounding soil. There is much lost constantly, in the yards, by the fermentation of manures. In one instance, a gentleman applied coarse manure upon one part of a piece of land, while upon another part of the same piece he applied manure of the same kind, but fermented. That to which the fermented manure was applied, did best the first year; but for the second, third and fourth, the crops were altogether better where the fresh manures were applied. Mr. Brown then quoted from Johnston's Elements of Agricultural Chemistry in confirmation of this doctrine.

"When used coarse, the immediate action of manure is not so perceptible, yet the ultimate benefit to the soil, and to the crop, may be even greater, if not requiring to be forced at one particular season of the year. While it is undergoing fermentation in the farm-yard, or cellar, the straw loses part of its substance—either in the state of gaseous matter, which escapes into the air—or of saline matter, which is washed out in liquid form. Thus, after complete fermentation, the quantity of matter present is really less, and consequently, when added to the soil, though the *immediate* effect upon the crop be greater, the *whole* effect may also be considerably less.

One ton of dry food and straw gives a quantity of farm-yard dung which weighs

When recent	46 to 50 lbs.
After 6 weeks	40 to 44 lbs.
After 8 weeks	38 to 40 lbs.
When half rotted	30 to 35 lbs.
When fully rotted	20 to 25 lbs.

A part of this loss may, no doubt, be ascribed to the evaporation of a portion of the water of the recent dung; but the larger part is due to an actual escape of the substance of the manure itself. The farmer, therefore, who applies the manure from a given weight of food and straw, *in a fresh state*, adds more to his land than if he first allowed it to become perfectly fermented. Were he to chop his straw, and put it in as it comes fresh from the field, he would add still more; but its action as a manure would be slower, and while it would beneficially open stiff and heavy soils, it would injure others, by rendering them light and porous."

Moses M. Fiske had found the value of peat or meadow mud to depend altogether on the character of the timber which had previously grown upon the land, or in the vicinity. If the previous growth had been of oak or other hard wood, the muck was good, but where the growth had been of pine or hacmatack, it was comparatively useless, except as an absorbent. He thought one shovel full applied in the hill was worth five spread on the soil and plowed in. He referred to the practice of the late Simon Baker, who, he said, had obtained, by the use of manure which had not been thrown out daily from the stalls, but was left for the cattle to lie upon, a bushel of potatoes from ten hills, while his neighbors were getting only a bushel from twenty-five hills by the use of manures thrown out daily.

Mr. Parsons, the chairman, then gave his testimony to the valne of muck when applied to young trees. He had found it equal in value to compost manure. He used a little of rye straw, cut twice in two, for his cattle, and had no floor to his stalls, and he had found the manure thus made to be very valuable, as the liquids are thus wholly saved.

Mr. Darling, of Boston, added further testimony to the value of coarse manure when applied to clayey soils. He believed liquid manures to be better for trees than solid.

Dr. Reynolds confirmed the view of Mr. Darling in reference to the application of liquid manures to trees. A good liquid manure might be obtained by having a tank at a distance from the house to receive the drain from the sink, with which other manures might be mixed, or it might be applied to trees or vines with profit without any addition.

W. J. Buckminster thought more experiments were needed to learn *how to apply* manure properly, and expressed the hope that further suggestions might be made on that particular subject.

At a few minutes after nine o'clock the meeting adjourned to next Tuesday evening, at seven o'clock, when the discussion of the same subject will be resumed.

Look to your Pear Trees!—Persons cultivating dwarf pears, or other low trees, shrubbery or evergreens, must have an eye to them — and a shovel too—when the great body of snow now lying on the ground, begins to thaw. It will settle about the tender twigs during the day, and freeze

them at night, but the earth being warm and the process of thawing and settling still going on, will drag down the smaller branches and break them off where they unite with the main stem. So it will be with raspberry and blackberry canes, and even currant and gooseberry bushes.

As soon therefore as a thaw commences, the snow should be carefully shovelled away from the plants so as to relieve their branches. In neglect of this, we have known some of the finest young fruit trees and shrubs of our gardens utterly ruined.

THREE THURSDAYS IN ONE WEEK.

Of all the paradoxes there is none more surprising or calculated to disturb the mind than that which asserts the possibility of having three Thursdays in one week. It is, notwithstanding, possible; and during the last century it was demonstrated more than once. Circumnavigators in their voyages round the world have discovered the fact. The ancients never entertained an idea of the possibility of such a thing. It was a matter of astonishment to seamen sailing round the world, to find on their return to the place from which they commenced their voyage, that they had gained a day. It was Thursday with them, and Wednesday at the place of their arrival.

On the contrary, those who sailed westward round the world, counted on their return, one day less to have passed than those did who had continued all the while at the place from whence the ship set out; so that it was Wednesday with the circumnavigators, and Thursday at the place of their arrival. As the pilots and others kept journals, and paid strict attention to every occurrence during the voyage, they were, in the first instance, at a loss to account for the difference they found between the journals of those who had sailed east, and those who had taken a westerly course. They accused each other of negligence, and the dispute led to a strong contest. Several able mathematicians at last discovered the cause. They found that the difference in time was occasioned by the laws of nature, and not the fault of the navigators.

The reason will be easily seen. Every fifteen degrees east from the meridian of London, it will be noon one hour sooner than with those of London. When they reach the meridian of Cairo, thirty degrees east of London, they will have noon two hours sooner than those at London, and so on in the same proportion. Every meridian they arrive at will bring the natural day one hour sooner than at London, so that when they have got quite round the globe, and returned to London again, they will have gone 360 degrees, and it will be noon, according to their reckoning, 24 hours, or a whole day, sooner than to those who stay at London; or Thursday to them, when it is but Wednesday noon in England.

On the other hand, if a ship set out from London and sails westward, when they come to the meridian of the Canary Island, 15 degrees west of London, their noon will be an hour later than at London. At 30 degrees west it will be noon two hours later than at London, and when they get round to London again, through the 27 meridians, their natural day will be 24 hours later than at London, or Wednesday noon with them, while it is Thursday noon at London. In this affair it is not necessary a ship should go round the world on the equator, it is sufficient if she passes through the several meridians, as all navigators must who go round the globe eastward or westward.

For example: suppose a traveller embark at Rochelle to go to the East Indies, when he shall arrive at the distance of 180 degrees east longitude, half the circumferance of the earth, it will be midnight there and noon at Rochelle. It follows that, in making the whole circle of the globe, he will gain twenty-four hours upon the day at Rochelle. If it is Wednesday at Rochelle, thus there are two Thursdays in a week. To find a third in the same week, we must dispatch another navigator, to sail from east to west. When he has reached 180 degrees of longitude, he will find himself opposite to that of Rochelle, and it will be Tuesday midnight, when they will have noon on Wednesday at Rochelle; they would find a difference of twenty-four hours between their reckoning. The Wednesday at Rochelle is Thursday for those who went to the east, because they gained a day. Secondly, the Friday of Rochelle is Thursday to those who sailed west, because they have lost a day. The Thursday at Rochelle is the third. Thus, according to the time, there are three Thursdays in one week.—*Nantucket Inquirer.*

For the New England Farmer.

LITTLE THINGS:

OR, A WALK IN MY GARDEN...NO. 6.

Cold weather, you will exclaim, Mr. Editor, to walk in the garden, with the thermometer down to zero. But let us see. Yesterday was a pleasant January day. So with saw in hand, I ventured out on the snow-banks, and walked into the tops of my

APPLE TREES.

Now don't, kind reader, turn up your nose, because your theory differs from mine. What does the surgeon do when he amputates a leg? O, he *dresses* it carefully as possible; very well. So do I dress a limb of a tree after it is sawed off, and common sense requires it as much in one case as in the other. But I find it pleasant, as well as convenient, on a leisure day to go out and trim off the shoots and dead branches, and when a warm day comes in spring, I go all over the orchard with a ball of grafting wax, or some shellac dissolved in alcohol, and cover every wound. If you are not willing to do this, then don't prune till the leaves are set, or, which is, perhaps, better, till September and October, which with me is a very busy season. I see where I have practised pruning and dressing in years past, as I have described, that the bark is lively, and the healing process is going on all around the wound, a point of the greatest importance. My theory on this subject, is to take care and dress your wounds, make them when you will. But let me get over this snow-bank and look into the

FRONT YARD.

I want to tell your farmer readers how they may have a front yard filled with the most thrifty trees and shrubbery without any expense. A great many persons build a house, put up a front yard fence, and set out four elm or maple trees, and leave them to take care of themselves. The probability is that

about one of the number will live in a sort of doubtful condition for several years, and then either conclude to live or die.

Now I will tell you how I did. I had a small front yard, thirty-six by eighteen feet, fenced in from a common. I spaded up the ground, manured and planted it with potatoes, and cultivated them thoroughly, and obtained a crop which more than paid me for my labor. The next year I spaded, took out the small stones, manured and sowed with carrots, beets, and other roots, and at the same time set out a row of trees around the garden, consisting mostly of rock maples. The neat-looking beds were no mean ornament, as the weeds were kept out. A handsome crop of vegetables rewarded me this year. The second year of planting my trees, I had shoots eighteen inches in length. There is no tree that loves good treatment like the maple. As opportunity occurred, I introduced trees and shrubbery and diminished the space for garden vegetables, until I had a complete forest in my little front yard without any real expense whatever but which enhanced the value of the property in the market at least twenty-five per cent. One of these maples has been planted seventeen years, and has grown from one inch and a half in diameter to forty inches in circumference, and the luxuriance of the trees has been so great, that more than half of them have been cut out. I deprecate the habit of digging a hole in hard soil and crowding in a tree with the expectation of having a shade tree in the present generation, when a good shade may be obtained in five years, by the method I adopted. As ever, I am sometimes zeroically, and at others thermoically, yours, N. T. T.

Bethel, Me., Jan. 26, 1856.

VERMONT MARBLE.

Mr. M. M. Manly, of South Dorset, Vt., who is largely engaged in the marble business, and who recently offered a prize of $10,000 for the best marble sawing machine, furnishes the *Scientific American* with some interesting information in regard to this important interest. He says the quarries of Vermont alone are now valued by their owners at not less than $15,000,000. The marble formation extends the entire length of the State, and runs also through Berkshire County, in Massachusetts, through western Connecticut, and, he thinks, into New Jersey. And probably these marble interests are not a moiety of those which exist in the country. The business is yet in its infancy, although it has increased more than a hundred-fold in ten years. In Vermont, marble of almost every kind is found, from the ebony black to the snowy white, and varying nearly as widely in texture. Sudbury, Brandon, and Middlebury have statuary marble equal to the best Italian, as the busts of our native sculptor, Kinney, testify. Roxbury has an inexhaustible supply of the true *Verd Antique*, so identical in composition and appearance with that hitherto obtained from ancient ruins, that the best judges have mistaken the one for the other. Although these quarries have been opened but a couple of years, this beautiful stone has already found its way into the new capitol extension at Washington, and into the parlors of the rich in New York and Paris. The committee for the erection of the Benjamin Franklin monument in Boston, adopted it for that purpose, after subjecting it to the severest tests of heat, cold, and pressure. The "Vermont Italian" quarry of Dorset presents a bold front on the side of the mountain, half a mile long by 150 feet high, and of a breadth which ages cannot exhaust. Rutland alone turns out half a million dollars' worth a year.

Mr. Manly's prize offer for a sawing machine appears to have been fully successful. He states that sixteen patents have already been granted for machines of the character proposed, and several of these are now doing satisfactory work. In a short time a number more will be added to the list.

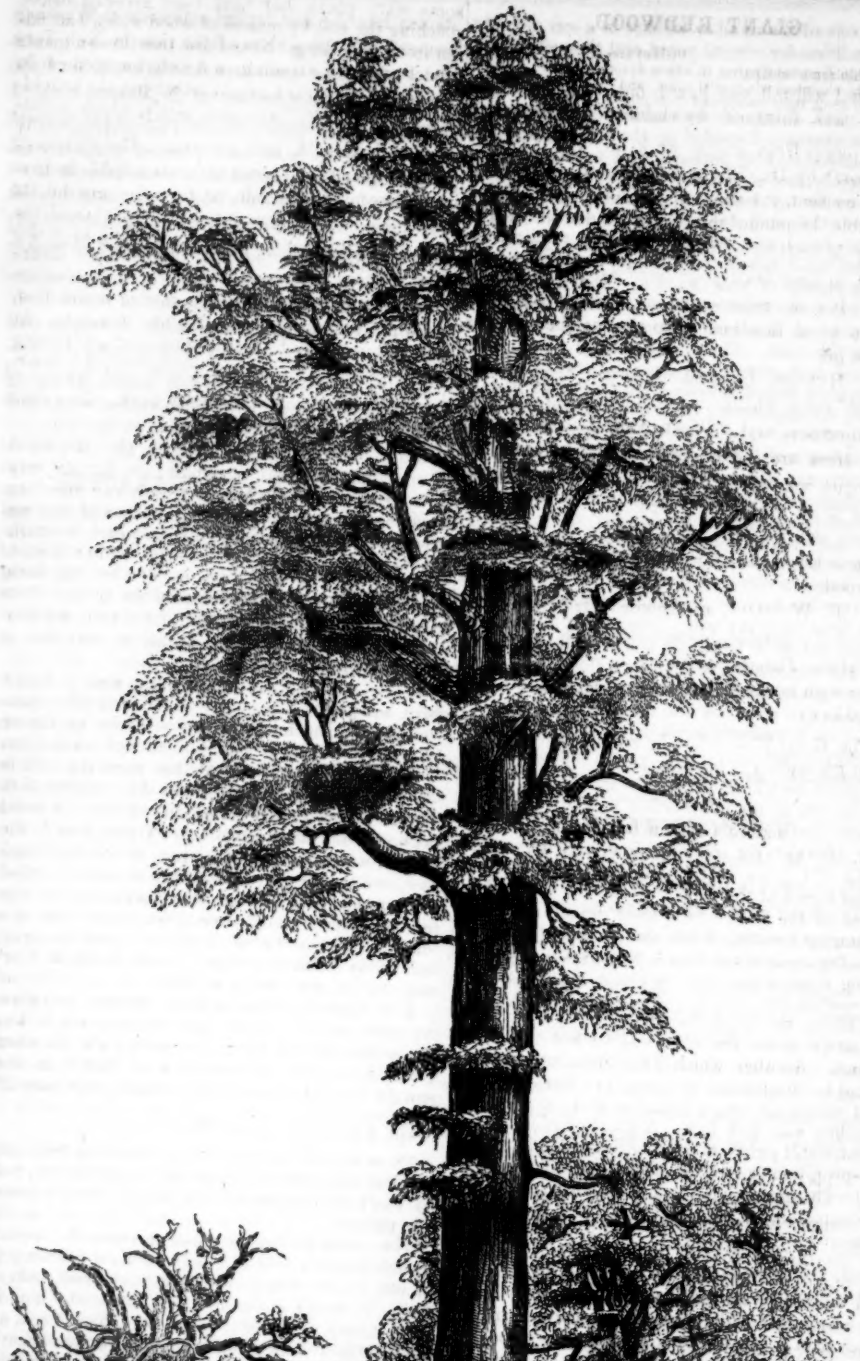
A YOUNG MAN'S CHARACTER.

No young man who has a just sense of his own value will sport with his own character. A watchful regard to his character in early youth, will be of inconceivable value to him in all the remaining years of his life. When tempted to deviate from strict propriety of deportment, he should ask himself, can I afford this? can I endure hereafter to look back upon this?

It is of amazing worth to a young man to have a pure mind; for this is the foundation of a pure character. The mind, in order to be kept pure, must be employed in topics of thought which are themselves lovely, chastened and elevating. Thus the mind hath in its own power the selection of its themes of meditation. If youth only knew how durable and how dismal is the injury produced by the indulgence of degraded thoughts, if they only realized how frightful are the moral depravities which a cherished habit of loose imagination produces on the soul—they would shun them as the bite of a serpent. The power of books to excite the imagination, is a fearful element of moral death when employed in the service of vice.

The cultivation of an amiable, elevated and glowing heart, alive to all the beauties of nature, and all the sublimities of truth, invigorates the intellect, gives to the will independence of baser passions, and to the affections that power of adhesion to whatever is pure, and good, and grand, which is adapted to lead out the whole nature of man into those scenes of action and impression by which its energies may most appropriately be employed, and by which its high destination may be most effectually reached.

The opportunities of exciting these faculties in benevolent and self-denying efforts for the welfare of our fellow-men, are so many and great, that it really is worth while to live. The heart which is truly, evangelically benevolent, may luxuriate in an age like this. The promises of God are inexpressibly rich, the main tendencies of things so manifestly in accordance with them, the extent of moral influence is so great, and the effects of its employment so visible, that whoever aspires after benevolent action, and reaches forth things that remain for us, to the true dignity of his nature, can find free scope for his intellect, and all-aspiring themes the for heart.



GIANT REDWOOD.

"Giant trees,
Children of elder time in whose devotion
The chainless winds still come, and ever come,
To drink their odors, and their mighty swinging
To hear—an old and solemn harmony."—*Shelley.*

We copy from a new work on "*The Trees of America,*" by Dr. PIPER, of Woburn, Mass., and by his consent, the above splendid specimen of the vegetable kingdom, the Giant Redwood of the Snowy Mountains of California. This tree is reported to have been *four hundred and fifty feet high.* It is not represented in our engraving as entire, as when sketched a portion of the top was broken off.

Dr. HUNTER, in speaking of one the gigantic English oaks, which measured forty-eight feet in circumference, says, "When compared to this, all other trees are but children of the forest. This enormous oak would scarcely make a branch for one of these gigantic Californians. A drawing of this oak and the big elm on Boston Common are shown in the plate, drawn on the same scale as the Redwood.

Dr. F. WINSLOW, an American traveller, communicated a graphic description of this tree to the *California Farmer,* which we introduce here, together with interesting remarks from the *Country Gentleman:*

"The *Great Tree,* (thus he distinguishes the *Sequoia gigantea,*) is peculiar to the Sierra Nevada, and grows no where else on the globe. I may even add, as far as my information extends, that it is entirely confined to a narrow basin of 200 acres at most, of which the soil is silicious and strewn with blocks of Lignite. This basin is very damp, and retains here and there pools of water; some of the largest of the trees extend their roots directly into the stagnant water, or into the brooks. There are more than a hundred which may be considered as having reached the extreme limits of growth which the species can attain. One of our countrymen, Mr. Blake, measured one, of which the trunk, immediately above the root, was 94 feet in circumference. Another, which had fallen from old age, or had been uprooted by a tempest, was lying near it, of which the length from the roots to the top of branches was 450 feet. A great portion of this monster still exists, and, according to Mr. Lapham, the proprietor of the locality, (and who has undoubtedly appropriated to himself all trees by right of occupation,) at 350 feet from the roots the trunk measured 10 feet in diameter. By its fall, this tree has overthrown another not less colossal, since at the origin of the roots it is 40 feet in diameter. This one, which appeared to me one of the greatest wonders of the forest, and compared with which man is but an imperceptible pigmy, has been hollowed, by means of fire, throughout a considerable portion of its length, so as to form an immense wooden tube of a single piece. Its size may be imagined when it is known that one of my companions, two years ago, rode on horseback in the interior of this tree for a distance of 200 feet, without any inconvenience. My companion and myself have frequently entered this tunnel and progressed some sixty paces, but have been arrested before reaching the end by masses of wood which had fallen from the ceiling. Near these overthrown giants others still are standing, not inferior to them in size, and of which the height astonishes the beholder. I can mention three particularly, which, entirely isolated, grow near each other so systematically as to appear to have been planted purposely to produce the effect. A fourth is remarkable in having between 50 and 100 feet from the ground, its trunk divided into three enormous branches of the same size and nearly parallel, extending to a distance of more than 300 feet. Others are distinguished by the straightness of their trunk, comparatively as delicate and erect as that of a pine tree, and which are not less than 350 feet in height. At some distance may be seen a species of knoll rising from the surface of the ground, and which is merely a half-developed knot, the last remains of one of these monsters, which have fallen centuries ago and are now buried under the soil.

"I am informed by Mr. Lapham, that the wood of one of these trees is remarkable for its very slow decomposition. When freshly cut the fibre is white; but it soon becomes reddish, and by long exposure to the air acquires a color nearly as dark as Mahogany. Its consistence is rather feeble, nearly resembling the pine or cedar, but the bark covering it differs materially from the latter. It is excessively thick near the foot of the tree, sensibly elastic on pressure, and is readily divided into a mass of fibres closely resembling those constituting the husk of the cocoa-nut, but much finer. About this portion of the trunk it is split in every direction by deep cracks, but at the elevation of 100 or 180 feet, it is almost smooth, and not more than two inches in thickness. At this point the bark is removed from the living tree for exportation. (How can such a sacrilege be tolerated!) A hotel has been built along side of the "Great Tree," the bark of which was exhibited last year at San Francisco, and, on its overturned trunk a sort of ladies' pavilion has been erected, which serves as an elegant promenade. In order to fell it the trunk was bored, by means of a very long and powerful augur, with many holes very near to each other and arranged circularly; but even when almost detached from its bases its immense mass resisted all efforts to overthrow it. Four days subsequently it was blown down by the wind. It shook the earth when it fell, and made for itself a deep furrow in the ground in which it lies, at this moment, half buried."

The *Country Gentleman* adds:

"Now to read simply of a tree four hundred and fifty feet high, we are struck with large figures, but we can hardly appreciate the height without some comparison. Such a one as that through which the horseback journey was performed, would stretch across a field of twenty-seven rods wide; if standing in the Niagara chasm at Suspension Bridge, it would tower two hundred feet above the top of the bridge; if placed in Broadway, New York, at the head of Wall Street, it would overtop Trinity steeple by one hundred and sixty feet, and would be two hundred and thirty feet higher than Bunker Hill monument, Boston; or two hundred and seventy above Washington monument, Baltimore. If cut up for fuel, it would make at least *three thousand cords,* or as much as would be yielded by sixty acres of good woodland. If sawed into two inch

boards, it would yield about three million feet, and furnish enough three inch plank for thirty miles of plank road. This will do for the product of one little seed, less in size than a grain of wheat.

By counting the annual rings, it appears that some of the oldest specimens have attained the age of three thousand years. If this computation is correct, and we see no reason to doubt it, they must have been as large as our best forest in New York, in the times of Homer and the prophet Elijah; and venerable and towering giants during the Carthagenian wars. In other words, "The Roman Empire has begun and ended" since they commenced growing. We hope the small plantation which comprises their whole number, will not share the fate of the world-renowned cedars of Lebanon on their native mountains, now reduced to a dozen in number, but that they will be protected and preserved, and only those that fall by old age be removed for exhibition. It would of course be idle to talk of transporting such a monster to this part of the country, weighing as it does some five thousand tons, and a portion of its shell only may be secured as a fragment of such a specimen in natural history."

For the New England Farmer.

AIR-TIGHT STOVES.

A recent article in the *Farmer* reminded me of an idea in relation to Air-tight Stoves. The true principle of an air-tight has almost been lost sight of within a few years, by making them small, under the mistaken notion that the smaller the stove, the greater the saving of fuel. There is no better method yet discovered of securing a soft balmy air in a room at a cheap rate than from an air-tight of large size. Manufacturers make small stoves to suit customers, but true economy will lead a man to inquire whether a small stove is not really the more expensive. It requires more labor to prepare the fuel. The air-tight principle is almost entirely lost. The high temperature of the stove speedily burns it out, as well as changes every particle of dust into carbonic acid, which will soon produce headaches, while it requires almost constant attention.

I have an air-tight made to order from the best of Russia iron, which has been in constant use for fourteen winters, and it is not worn out yet. It is two feet six inches in length and of the same height, and will warm any room, giving out a large volume of heat at a low temperature, which is the true secret of a good air-tight. Among all the comforts of life in my possession, I have never yet found one to equal the somewhat unfashionable looking air-tight.

I believe that a little attention would give us air-tight stoves that would warm our churches, school-rooms and private dwellings much cheaper and better than the present clumsy and expensive mode of brick furnaces. Any method by which a large radiating surface is obtained (and no material yet discovered will do it at a cheaper rate than sheet-iron) and a corresponding volume of heat at a low temperature, and the object will be accomplished.

I have noticed another fact in the school-room. The habit of putting water on a stove is in most cases an injurious one. There is a large amount of evaporation, and the moment a person who has not been exercising, steps out of doors, he feels an unusually chilly sensation, which is anything but agreeable. Then if there is any vegetable matter in the vessel, it will certainly generate carbonic acid, and pupils will complain very soon of headache. Water kept in an open vessel in any other part of the room will supply all the moisture necessary. I have not kept water on a stove for twenty years, and find it much better than formerly for the comfort of pupils. But few persons distinguish between vitiated air, and warm air. A room may be cold but have impure air, or it may be warm and pure. Hence the necessity of some ready means of ventilation.

N. T. T.

Bethel, Me., Jan. 14, 1856.

REMARKS.—Capital. This article alone is worth more than a year's subscription to any person who desires to keep his house warm at a cheap rate.

A HORSE WITH THE HEAVES.

HOW I BOUGHT A HORSE THAT HAD THE HEAVES, AND HOW I TREATED THAT DISEASE.

BY HENRY F. FRENCH.

MR. EDITOR:—Did you ever read the "Adventures of a Gentleman in Search of a Horse?" I read it years ago, and have never been so fortunate as to see it since. If I recollect aright, it gives the experience of a man, who set out to purchase a perfect horse, and with about the same success that King Solomon had in trying to find a perfect woman; and tells how he, like all the rest of us, got cheated again and again, in different ways, as the *best of people will*, and indeed are more likely to be than anybody else. Once he bought a fine animal that was advertised, as *sold for no fault only the owner wants to leave town*, and the new proprietor was led to feel the full force of the language, the first time *he* wanted to leave town, for his new steed could not be induced by any suasion, moral or physical, to budge a single rod from his stable door.

Perhaps it was not *that* gentleman, but another, who having purchased a nag, which was represented as *free from all faults*, and found him stone *blind*, brought him back to the seller, and reminded him of his statement.

"I hope," replied the seller coolly, "you don't call blindness a *fault*, when it is only the poor horse's *misfortune!*"

Everybody knows that I have no great pretensions to much knowledge about horses, and in order, therefore, to give my teaching due weight, you must be informed how I came by my education in this department of science. Be it known, then, that about five years ago, I chanced to be the proprietor of a mare, the veriest vixen that ever went on four feet. Among her other "amiable weaknesses," was a strange propensity to kick. It was her favorite amusement to kick at any other creature, quadruped or biped, that came within reach; and when tied alone, she would keep herself in practice by kicking up her heels, as high as the scaffold, about once in five minutes, accompanying the performance with a squeal, that could be heard by all the neighbors.

Such an animal was rather difficult to dispose of, as you may suppose. Mr. Pickwick and his friend, after they had led that "dreadful horse" six miles in the heat and dust of a summer's day, with-

out being able to mount him, were in a scarcely worse dilemma. Finally, my precious Kate, who was more of a "shrew" than even Petruchio's, having withstood most manfully (*womanfully* occurred to me, but I wont say it,) all my endeavors to tame her, commenced a new species of gymnastics, by kicking up in the carriage every time she felt the breeching in going down hill.

Now, as she would not work on the farm "for any man's persuasion," and was not precisely the kind of animal to sell to one's particular friend as "a steady family horse," and as I did not dare to risk my own wife and children behind her, I began to read the "Muck Manual" with the idea of computing her agricultural value for the compost heap, when fortunately I had ocasion to drive her to the good old town of Derry in a sleigh. As I came up to Cameron's Hotel, at about a "three minute lick," as the jockeys say, I saw at the sign-post, a fine stately horse harnessed to a sleigh. I was examining him pretty carefully, when a man whose appearance announced him as one of "the fancy," stepped out and accosted me with "Well, friend, do you want to buy such a horse as that?" "I should like him," was my reply, "if he is as good as he looks, and you will sell him at a fair price, and take mine without any steel engraving."

"Why, what sort of a beast have you got? She looks well, and came up the street as if she had legs enough."

I hope I shall be forgiven, if I suspected he would not believe more than half I said, when I replied, giving him the literal truth: "She is six years old, and sound, can trot a mile in three minutes, and will be likely to kick your brains out, if you take her, in the course of a week." He assured me that *his* horse was perfectly sound and kind; that his price was three hundred dollars, and that he would "swap right;" adding coolly, "I should like to see one horse that is uglier than *I* am."

I proposed to drive his horse, alone, to which the owner at once assented, and I steered straight off to the stable of a man, famous for his skill in horse-flesh, whom I had known when I was a boy there at Pinkerton Academy, and asked him to examine the animal with me. We drove him out of sight, and gave him a thorough investigation. We tried him in all his paces, walk, trot and canter, forward and, backward, examined his teeth, his feet, his knees, his eyes. We observed his breathing, spoke of the glanders, the heaves, broken wind, and various other ills which horse-flesh is heir to. He was young, and large, and handsome, and fleet, and to all appearance sound and manageable; and yet we were perfectly satisfied that the horse had some defect.

However, I put a bold face on the matter, drove back to the hotel, and told my man I would give him fifty dollars to boot, or go along with my own horse. Without driving my mare an inch, he quietly unhitched his own horse from his sleigh, and exchanged harness, put him to my sleigh, and pocketed his fifty dollars, hardly losing a whiff of the cigar he was smoking. I confess I was a little startled at his perfect composure, but with a friendly caution to beware of Kate's heels, I bade him farewell.

I had but five miles to drive that afternoon, to my native town of Chester, where I stabled my new horse for the night. I gave him the name of the "General," it being a time of political excitement, when both candidates bore that title. I never mingle politics with agriculture, and did not want my horse to run a political course.

Having dreamed of horses all night, besides having the *nightmare* once or twice, I awoke betimes, anxious to learn the condition of my new treasure. Everybody knows how much more pride one feels in his horse, than in any other property, and especially how it takes the conceit out of him to be cheated in a "horse-trade."

I went to the stable with fear and trembling, doubting whether the "General" had not been transformed like fairy gold to dust and ashes during the night, or whether he might not have been a witch's horse, and be found turned into a broomstick!

But he was there in full shape and proportion. He gave a slight cough as I opened the door, a sound which a man who has owned a horse with the heaves will never forget; and on examination, I found he had a strange way of breathing, his flank heaving two or three times at every expiration of the breath. I was told at once that my horse had the *heaves*.

I had heard of the disease frequently, and had the impression, which I find is quite common, that it renders the animal worthless. However, as it was a complaint which struck at my purse and my feelings, and not like Katy's heels, at my *head*, I concluded to be resigned, and avail myself of my very manifest advantages for observations on its symptoms and treatment.

My horse went home to Exeter, sixteen miles, in fine style with no symptom of disease, except once in a mile or two a slight cough. Straightway I strove to learn all that books and stable-men can tell of the heaves, and to try all known remedies.

In its common form it is thought to be a formation of air-cells on the outside of the lungs, from which the air escapes with difficulty. Sometimes, on dissection, the proper air-cells of the lungs are found to be ruptured, and generally there is inflammation of the throat and windpipe. The theories about it are various. It is often said that the lungs have not room for action, and that food should therefore be given in a condensed form, and in a moderate quantity—and this I should regard as correct, were it not notorious that horses at grass, where they eat enormously, and keep their stomachs distended, are usually relieved of their worst symptoms.

I tried all sorts of heave powders on my patient, with no effect whatever. It is said that in a limestone country this disease is unknown, and lime water was prescribed with no apparent advantage. Some one told me to give the horse ginger, and strange to tell, I found that a tablespoonful of ginger given to the General with his oats, would cure him for the day, in half an hour after he had eaten it; but on giving it daily, the effect soon ceased. It is a jockey's remedy, and will last long enough to swap upon. Finally, I was advised to cut my horse's, fodder and give it always wet. I pursued that course carefully, keeping the General tied with so short a halter that he could not eat his bedding, giving him chopped hay and meal three times a day, and never more than a bucket of water at a time.

He improved rapidly. I have kept him five years, making him a *factotum*—carriage horse, saddle horse, plow and cart horse—and he bids fair to remain ussful for five years to come. Kept in this way, his disease does not lessen his value for speed or labor, a single dollar. When the boys grow care-

less, and give him dry hay, he informs me of it in a few days by the peculiar cough I have mentioned; but sometimes, for six months together, no indication of disease is visible, and he would pass for a sound horse with the most knowing in such matters. There is no doubt that clover hay, probably because of its dust, often induces the heaves. Stable keepers with us, refuse it altogether, for this reason.

Many suppose that the wind of the horse is affected by the heaves, so that fast driving at any time will, as we express it, put him out of breath. With my horse, it is not so.

When the "General" was at the worst, rapid driving, when just from the stable, would increase his difficulty, but a mile or two of moderate exercise would dissipate the symptoms entirely. We have, occasionally, what are called *wind-broken* horses, which are nearly worthless for want of wind. They can never be driven rapidly without great distress, and frequently give out entirely by a few miles' driving. This is thought to be a different disease. The "General's" case is, I suppose, a fair example of the *heaves*.

I have no doubt that regular feeding with chopped and wet fodder, and exclusion of dust from hay fed to other animals in the same stable, would render many horses now deemed almost worthless, and which manifestly endure great suffering, equally valuable for most purposes, with those that are sound.

And now, my dear sir, if you will call on me when the snow has gone, and the birds begin to sing, I will show you the "General," fat and sleek. I shall be glad, also, to show the *country gentlemen* of our neighborhood, one whom they already know by his works, as a man who has done much to make the earth fruitful and beautiful, and to enhance the enjoyments of Rural Life.

The above account of "How I bought a Horse that had the Heaves, and how I treated that Disease," was furnished some time since for the columns of the *Country Gentleman*, by HENRY F. FRENCH, Esq., of Exeter, N. H. The spirited style in which it is narrated will give double effect to the lesson it teaches. Though extensively copied at the time of its publication, we think it well worthy of a wider circulation, as well as a convenient form for frequent reading.—*Illustrated Annual Register of Rural Affairs.*

REMARKS.—We have often had an agreeable ride at the expense of "The General's" strength, and have seen him at the plow, and in all sorts of harness, and everywhere conducting himself as a very sensible and powerful animal. Proper treatment in feeding, working and stabling, will accomplish more than all the nostrums of the shops, as will be seen in this case. At the age of *fifteen*, the General is still *sound* as he was when "one of the Fancy" stept out of Camerons' Hotel and accosted our Associate with, "Well, friend, do you want to buy such a horse as that?"

THE VETERINARY JOURNAL.—The number of this useful work for January contains a lecture by D. D. SLADE, M. D., delivered at the opening of the *Boston Veterinary Institute*, which gives a brief history of the horse, his uses, treatment and importance, and also of the *abuses* which prevail, and the necessity of placing the veterinary medicine of our country upon the basis which it merits. The paper is a capital one, and ought to be read by all who have the charge of horses. There is also an Essay on Diet, a paper on Chronic Cough, one on the present prevalent disease among horses, one on ill-using horses, which we intend to copy, and several topics are discussed, all of an interesting and practical character. The work ought to be well sustained.

The number for February has a most spirited engraving of the horse, "Wild Air," owned by J. S. Durgin, of Fishersville, N. H., the conclusion of the article on diet, articles on horse influenza, black leg in cattle, &c.

A SNAKE COMBAT.

Combats between the rattle and black snakes are certain if they meet, and the black snake is, with rare exceptions, the conqueror. Upon seeing each other, those animals instantly assume their respective attitudes of defiance, and display the great difference in their organization. The rattlesnake coils itself up, ready for attack or defence; the black snake, being a constrictor, moves about from side to side, and is in constant activity—naturally exciting each other's passions. The rattlesnake finally settles down into a glowing exhibition of animosity, its fangs exposed, its rattles in constant agitation. The black snake, seemingly conscious that the moment of strife has come, now commences circling round its enemy, absolutely moving so swiftly that it seems but a gleam of dull light; the rattlesnake attempts to follow the movement, but soon becomes confused, and drops its head in despair; then it is that the black snake darts upon the back of its deadly foe, seizes it between its teeth, and springing upward, envelopes the rattlesnake in its folds. The struggle though not long, is painful; the combatants roll over in the dust, and get entangled in the bushes; but every moment the black snake is tightening its hold, until the rattlesnake gasps for breath, becomes helpless, and dies. For a while the black snake still retains its grasp; you can perceive its muscles working with constant energy; but finally it cautiously uncoils itself, and quietly betakes to the water, where recovering its energy, it dashes about a moment as if in exultation, and disappears from the scene.

For the New England Farmer.

MEASURE OF MILK.

MR. EDITOR:—We are accustomed to look to those in authority for guidance in the ways of life. I hear much said about the measure of milk. My milkman has lately altered his measure from beer measure to wine measure, and his price from seven to six cents per quart. I wish you or some of your statistical correspondents, would inform which gains by this change?

Feb., 1856.

THE TREES OF AMERICA.

Under this title Dr. R. U. PIPER, of Woburn, Mass., has issued the first number of a work of surpassing interest and beauty. It is in quarto form, printed on fine, heavy paper, with large and handsome type, and illustrated with a beautiful vignette, and a portrait of the *Giant Redwood*, copied by permission, and given in another column of this paper, the "Assabet Oak," on the Randall estate at Stow, and the "Avery Elm," at Stratham, N. H.

Dr. PIPER is a genius. We have seen various specimens of his artistic skill which are wonderful. His illustrations in surgery, with their exquisite colorings, would alone give any man an enviable reputation, and so would his transfers of the frost-work on windows, also colored in any desirable tint. That the reader may better understand the purpose of the Doctor we give below his own explanation.

The subscriber proposes to publish a work on TREES OF THIS COUNTRY, accompanied with steel engravings of such trees as are of interest, on account of their size and history, &c. Like their compatriots, the Soldiers of the Revolution, many of these venerable trees will soon have passed away, and it seems an object of much interest to preserve their memory for the future. Every other civilized country has done this work, making it a matter of national concern. We have trees in our country as beautiful as any of which foreign countries can boast, and of far greater magnitude; many of which possess, to us, also much historical interest.

To the description of each particular tree will be added whatever may be deemed of interest in regard to the cultivation of the species to which it belongs, giving the best method of transplanting, &c. In this department the author has, in addition to his own experience, the promise of the aid of the most eminent Arboriculturists in this country.

It is intended to give twelve or more Plates during the year, adding perhaps a few foreign trees of note, for comparison.

The work will be issued in Quarterly Parts, each Part containing at least three plates, with the description. Price of one year's subscription, two dollars, payable in advance. R. U. PIPER.

THE GRAPE VINE.

Our people are taking a great interest in the culture of the grape; and since the success of Mr. BULL, in introducing a variety at once excellent in flavor, and so early and hardy as to ripen before our usual autumnal frosts, and withstand the low temperature of our winters, there is great encouragement for renewed efforts.

Our object now, is, however to make a suggestion or two to those already possessing vines in different stages of growth, and those we find at hand in *"The Soil of the South,"* an excellent paper published at Columbus, Georgia. It says, "Whatever pruning is to be done, should be done now. The native vines are found only to succeed well in open culture. They will not need pruning so much to force the formation of fruit, as to keep the vine within bounds; for in good soils, they are all rapid growers. The small limbs branching from the main stem, may be cut back to three buds; each one of these buds will make fruit. So if each one of the lateral branches produces three bunches of grapes, the vine will make a splendid yield. The main vine may be cut back, when it is necessary, but if fruit be the object, only prune the laterals. If the vine wants invigorating, dig in a mould from the woods and swamps, with a little good guano, or hen manure with it, around the roots, not merely at the base, but ten or twenty feet from it Train the vine to trellis or posts before the buds begin to swell, otherwise the buds may be rubbed off, and lost." Prune immediately before the warm sun and air starts the sap.

For the New England Farmer.

STATE REFORM SCHOOL.

MR. EDITOR:—I was pleased with the inquiry in your last as to the State Reform School at Westborough. It seems to me your correspondent was right, in considering this one of the noblest of the institutions of the State—both in its origin and in its object. The generous founder, who appropriated nearly *one hundred thousand dollars* of his patrimony to this institution, had enlarged views of its utility. It is the bounden duty of the State to see that these views are carried out to their full extent.

Compare it with other public institutions, such as the State Prisons—the State Alms Houses—the State Hospitals, and the like—all these are well enough in their place; but what is this—to provide for those that are *used up*, and from whom there is no longer hope of benefit to the community. Not so with the youth sent to Westborough. To be sure, they may have the misfortune to be without the protection and guidance of parents, but they are not wanting in physical and mental energy; and if properly guided they will be found the seed of hopeful promise.

There are several hundred boys, between the ages of ten to twenty, entirely under the control of the guardians of this institution. Provision is made for binding them out to service; but this is not compulsory, if they can be better instructed and employed on the farm.

Where could there be a better opportunity to educate and discipline good farmers? The connection of this school with the Board of Agriculture was a happy idea. Here you have a board of supervision drawn from every section of the State, selected by the best of farmers in those sections—coming together not for the purpose of enriching themselves by pocketing high salaries, but for the noble purpose of doing good;—if it be possible to find an organization from which much is to be hoped, this is the one. With all my heart, I say,

Jan. 28, 1856. SPEED THE PLOW.

REMARKS.—The writer of the above is not only well acquainted with the institution and the farm o which he speaks, but from an extensive knowledge

and constant observation of other farms in the State, knows what may be accomplished at the State farm, under a judicious management. *There* is an opportunity to implant a love of rural life that shall guide hundreds of these unfortunate boys through life in the paths of usefulness and peace. We regard the *agricultural* teachings there—properly directed, to be of as much importance as the moral and educational in their schools, and believe our opinion would be sustained by the facts, if the lives and characters of all who have left the institution, could be ascertained.

EXTRACTS AND REPLIES.

COLD DAYS.

his month has had an uncommon number of cold days, I have kept a minute so far as follows:—

1856—January 5, Mercury at 7 A. M. 26 below zero.
January 7, Mercury at 7 A. M. 24 below zero.
January 16, Mercury at 7 A. M. 12 below zero.
January 21, Mercury at 7 A. M. 10 below zero.
January 22, Mercury at 7 A. M. 20 below zero.

Montpelier, Vt. CHARLES BOWEN.

SEEDING LAND TO GRASS—DIFFERENT MODES OF DOING IT—WHAT CROPS SHOULD PRECEDE IT.

MR. EDITOR:—As you have a column dedicated to "Extracts and Replies," I should like to inquire what is the best crop to seed land down with? (*a.*) Also what the best crop to raise before that, with a good coating of manure? (*b.*) My farm is stony, and I want to know the grass that will be the most profitable, and still leave the land in the best possible condition for grass.

I am not able to drain my farm yet, and as it is rather wet to work to advantage at all seasons, it is very desirable to have it produce well as long as possible when once down to grass. J. B. F.

Lebanon, Oct., 1855.

REMARKS.—(*a.*) The queries of "J. B. F." suggest a reply extended to a column, or more, but we think in a few words, he may be afforded some relief. If your land has been planted a year or two, and you wish to lay it down in the spring, plow deep, manure and pulverize well, and if the soil is a heavy loam, inclined to be wet and tenacious, sow oats with your grass seed at the rate of two and a half or three bushels to the acre; but if the land is a gravelly loam, sow barley from five to seven pecks per acre, according to the richness of the soil and the state of the season. You may plant corn, cultivate without hills, and at the third hoeing sow grass seed and rake it in. The corn keeps the ground moist, facilitates the sprouting and springing of the germ, and shelters the young plant when it is up. In harvesting the corn, the stalks should be level with the ground, so as not to interfere with the scythe when mowing the grass crop the next season. This is one of the *surest* methods of seeding down land to grass, and we believe one of the cheapest; we have never known a crop to fail when seeded in this way.

If your land is already in sward and needs resetting, another method is to turn the sod under eight to twelve inches, dress with compost manure, harrow finely, and sow grass and turnip seed together, in the last of July or first of August. The turnip, not exhausting the soil much, costs little more than the expense of gathering, and will afford an excellent change with the dry food of winter.

(*b.*) Crops that precede seeding down to grass, should be such as leave the ground mellow, and free from weeds; and for this reason hoed crops are to be preferred, such as turnips, potatoes, corn, peas and beans.

If your farm, as you say, is "stony and rather wet," you will be quite likely to commit an error common to most of us—that of attempting to cultivate too much land. Suppose you select a single acre, or field, thoroughly drain it, plow deep, manure liberally, and cultivate well every way, and keep an exact account with it for three years, doing the same by an equal amount of land managed in the ordinary way, and then compare profits, and let us know the result? This would be the way to ascertain which mode would ensure the largest profits.

THE NEW ENGLAND FARMER.

DEAR SIR:—The specimen numbers of the *N. E. Farmer* sent me some weeks ago, were read with no small degree of satisfaction. I know not how a farmer can spend a dollar to better advantage than to enroll his name on your subscription list. *Pay in advance* makes subscribers like both editor and paper a hundred per cent. better than when they know they are in debt to both.

CROPS IN CHESTER COUNTY, PENN.

We had a fine fall, but January has been severe, with good sleighing. Wheat appeared well before the ground was covered, and there is a large quantity put in. We had good crops of corn and potatoes. There will not be as much corn put in the coming spring as last, because so much of the ground is occupied with wheat.

Near Lewisville, Pa., C. R.

TO CORRESPONDENTS.—Articles have been received on Willow Fences, How to raise Colts, Singular Apple, Things in Vermont, South Down Sheep, In Regard to Capt. Symms's Hole, Liquid Manures, Horse Racing at Cattle Shows, Preserving Forests, Barns, Farm Buildings, Use of Plaster, Planting Cut Potatoes, Poultry, Rearing, Preparation for Market, &c., Orcharding for Stock, a fine Ayrshire Cow, Science and the Farmer, Green Corn for Soiling, Reports on Cashmere Goats, Experiments with Superphosphate of Lime, The Open Polar Sea, The Plow, Green Wood, Management of Stock, State Reform School, &c. These articles are mostly from practical farmers, and will be given as our limits will permit.

AN OCEAN RIVER IN THE PACIFIC.

Lieut. Bent, of the U. S. Navy, read an interesting paper before the New York Geographical and Statistical Society, last week, on the existence of an ocean river in the Pacific, flowing to the northward and eastward along the coast of Asia, and corresponding, in every essential particular, with the Gulf stream of the Atlantic. We find a brief report of this valuable paper in the New York *Evening Post*, from which we condense a few of its facts.

The existence of a strong northeast current on the coast of Japan was noticed by Cook and other early navigators, and the Japanese have given it the name of the "Kuro-Siwo," or "Black Stream," from its dark blue color, as compared with the adjacent ocean. Springing from the great Equatorial current of the Pacific, the oceanic stream extends from the Tropic of Cancer on the north, to Capricorn, with a width on the south of three thousand miles, and a velocity of from twenty to sixty miles a day. Upon reaching the coast of Asia, it is diverted to the west, and in passing through the great Polynesian Archipelago is split into innumerable streams, which diffuse a fertilizing warmth over that portion of the globe. The influence of the Kuro-Siwo upon the climates of Japan, and the west coast of North America, is, as might be expected, as striking as that of the Gulf Stream on the coasts bordering the North Atlantic. From the insular position of Japan, with the intervening sea between it and the continent of Asia, it has a more equable climate than we enjoy in the United States. The softening influence is also felt on the coasts of Oregon and California, but in a less degree, perhaps, than those of the Gulf Stream on the coasts of Europe, owing to the greater width of the Pacific ocean over the Atlantic. Still, the winters are so mild in Paget's Sound, in lat. 48 deg. north, that snow rarely falls there, and the inhabitants are never enabled to fill their ice houses for the summer, and vessels trading to Petropaulowski and the coast of Kamtschatka, when becoming unwieldly from accumulation of ice on their hulls and rigging, run over to a higher latitude on the American coast, and thaw out, in the same manner that vessels frozen up on our own coast retreat again into the Gulf Stream until favored by an easterly wind.

How to Raise Melons.—We would invite the attention of all lovers of good melons to the advertisement on the cover of this Number, of S. C. Abeel. The editor of the *Wisconsin Farmer* says: "From what we know of Mr. Abeel's method, we think there is no humbug about it. When a resident of Janesville, we lived neighbor to him three years, and know that he has unbounded success in cultivating melons—raising from one to ten acres annually."

For the New England Farmer.

COMMENDABLE FEATURE.

If "commendation commonly animates mankind," would the mention of the commendable features of the *Farmer* animate its contributors to perfect and to perpetuate them? The hope that it would, has incited me to mention one which every contributor can help perfect and perpetuate, and which adds not a little to the interest and circulation of this valuable paper, whose influence for popular education is inestimable. It is the distinct signature of each contributor, and the *town* from whence the communication comes. How natural, before reading a piece, for the eye to glide down the column to see what town is represented. Will each writer give his town, thereby ensuring extra interest to his communication, and oblige many a

Brookfield, Dec., 1855. Yeoman.

MANAGING BEES.

Saxton & Company, N. Y., have published a little *Manual, or an easy Method of Managing Bees, with infallible rules to prevent their destruction by the Moth.* It is by John M. Weeks, of Salisbury, Vt., and has an Appendix, by Wooster A. Flanders, of Northfield, Vt. We have had sufficient experience as a bee-master, to know that both these gentlemen must have had a good deal of experience in their subject to write as they have, as the work abounds with excellent suggestions and directions. Its descriptions of the bee and its management are clear and pleasantly written. Having never seen the practical workings of the hive which they recommend, we cannot speak of it from any personal knowledge. It is for sale by Redding & Co., Boston, price twenty-five cents.

BOYS' DEPARTMENT.

EARLY MENTAL ACTIVITY.

"Experience," says Dr. Spurzheim, "demonstrates, that of any number of children of equal intellectual power, those who receive no particular care in childhood, and who do not learn to read and write until the constitution begins to be consolidated, but who enjoy the benefit of a good physical education, very soon surpass, in their studies, those who commence earlier and read numerous books when very young. The mind ought never to be cultivated at the expense of the body; and physical education ought to precede that of the intellect, and then proceed simultaneously with it, without cultivating one faculty to the neglect of others; for health is the base, and instruction the ornament of education."

Let parents then check, rather than excite in their children, this early disposition to mental activity, or, rather, let them counterbalance it by a due proportion of physical and gymnastic exercises; for it is not so much the intensity as the continuity of the mental action, which is injurious to the constitution. Let them not cause the age of cheerfulness to be spent in the midst of tears and in slavery; let them not change the sunny days of childhood into a melancholy gloom, which can, at best,

only be a source of misery and bitter recollection in maturer years.

Physical exercises and the cultivation of the perceptive faculties should, with the reading of moral and instructive books, form the principal occupations of children. Their expanding frame requires the invigorating stimulus of fresh air; their awakening organs seek for external objects of sense; their dawning intellect incessantly calls for the action of their observant powers. This is the great law of Nature. She has given to the child that restless activity, that buoyancy of animal spirits, that prying inquisitiveness, which makes him delight in constant motion and in the observation of new objects. If these wise intentions of Providence be not frustrated; if he be allowed to give himself up to the sportive feelings of his age, he will acquire a healthy constitution, and a physical and perceptive development, which are the best preparation for mental labor.

Of the men who have conferred benefit on society, and have been the admiration of the world, the greater number are those who, from various causes, have in early life been kept from school or from serious study. They have, by energetic and well-directed efforts, at a period when the brain was ready for the task, acquired knowledge, and displayed abilities which have raised them to the highest eminence in the different walks in life, in literature, the arts and sciences, in the army, the senate, the church, and even on the throne. The history of the most distinguished among those who have received an early classical education, sufficiently proves that it is not to their scholastic instruction, but to self-education after the period of school, that they chiefly owed their superiority.

David, the sublime author of the Psalms, followed in his early occupations the dictates of nature; he had, in his youth, muscular power to tear asunder the mouth of a lion, to resist the grasp of a bear, and to impart to a pebble velocity sufficient to slay a giant. Napoleon, when in the school of Brienne, was noted in the quarterly reports of that institution as enjoying good health; no mention was ever made of his possessing any mental superiority; but, in physical exercises, he was always foremost. Sir Isaac Newton, according to his own statement, was inattentive, and ranked very low in the school, which he had not entered until after the age of twelve. The mother of Sheridan long regarded him as the dullest of her children. Adam Clarke was called a "grievous dunce" by his first teacher; and young Liebig a "booby" by his employer. Shakspeare, Moliere, Gibbon, Niebuhr, Byron, Humphry Davy, Porson, and many others, were in like manner undistinguished for early application to study, and, for the most part, indulged in those wholesome bodily exercises and that freedom of mind, which contributed so much to their future excellence.—*Marcel.*

COURAGE AND DISCRETION.—A courageous ram took it into his head to resist a locomotive. The brave old sheep heard the whistle, the roar and the rumble; he saw the shower of fire and glaring eyeballs of the monster; he curled up his majestic head, and he battered his brow into the foe. Alas! poor ram! not a lock of wool nor a peice of horn could be found. The owner, in lamenting the loss of poor rammy, said:—"I admire his pluck, but confound his discretion."

LADIES' DEPARTMENT.

DOMESTIC RECEIPTS.

TO MAKE INDIAN PUDDING.—*"Real Genewine Yankee Pudden."*—Take three pints of scalded milk, add as much fine, yellow Indian meal as will be sufficient to make a stiff batter, and a teacupful of molasses, with salt to your taste. Boil it four hours, or even longer, for boiling does not hurt, but improves it. A few ripe cherries or whortleberries will also improve it. Many think a small portion of suet (beef's) chopped fine, without the fruit, a good and even better addition. It is to be eaten with butter and molasses, of course.

This fine dessert of Revolutionary memory should occasionally have a place on every man's table. Down East it often comes to hand. Out West it is quite too rarely found.—*Ohio Farmer.*

BAKED INDIAN PUDDING.—Take three pints of scalded milk, one handful of wheat flour, three eggs, and as much Indian meal as will make the whole thick, like batter for pancakes. Add one gill of molasses, and salt to your taste. Bake three hours.—*Ohio Farmer.*

BEST NEW ENGLAND JOHNNY CAKE.—Take one quart of buttermilk, one tea-cup of flour, two-thirds of a tea-cupful of molasses, a little salt, one teaspoonful of saleratus, one egg (beat, of course.) Then stir in Indian meal, but be sure and not put in too much. Leave it thin—so thin that it will almost run. Bake in a tin in any oven, and tolerably quick. If it is not first rate and light, it will be because you make it too thick with Indian meal. Some prefer it without molasses.

A NICE DISH FOR BREAKFAST.—Take one egg and beat it up, add a teaspoonful of salt, pour into it about two-thirds of a pint of water, then slice some bread, dip it in, and fry in a little butter. Serve warm, and you will find it an excellent dish. —*Ohio Farmer.*

A PITY.—The young Prince of Wales, a lad of about thirteen or fourteen, is, it seems, already by a sad mixture of boyishness and dissipation, giving no little uneasiness to the maternal heart of the Queen, who has honestly enough, no doubt, tried all that a mother could, to keep him out of harm's way. With the education, learning, power and religion of all England, with its State Church at their backs, the royal pair, possessing no little education and taste themselves, find the same difficulty that George III. did, and all other kings have done from Henry III. downwards—the difficulty of providing the right kind of moral education for one born the heir apparent to the British throne. This arises in part no doubt from the anomaly of his position. He is a child educated with the knowledge that he is one day to be a king, the king over every inhabitant of Great Britain and its dependencies, embracing hundreds of millions of human beings, with a territory on which the sun never sets. A lad with his head filled with these ideas, surrounded by those whose interest it is to flatter and indulge all the whims of a child, in hopes of being remembered hereafter by the powerful young man, may well have his head turned, had he the wisest as well as the best of mothers.